ADMINISTERING THE SECONDARY SCHOOL

KOOS · HUGHES · HUTSON · REAVIS

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ADMINISTERING THE SECONDARY SCHOOL

Administering the Secondary School

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Preface

With so many books already in the field, a new treatise on secondary-school administration can be justified only by distinctive features and qualities. The authors believe that these are as follows:

(1) This book contains a comprehensive treatment of problems of internal organization and management, but it does not overlap unduly on the areas peculiar to books in other portions of the whole field of secondary education, in particular the "principles of secondary education" and supervision. It is too much to expect that, in these days of rapidly developing specialized content, a single book, even a large one, can deal adequately with secondary-school administration and other major phases of the whole field.

(2) The book is put forward as a co-ordinated synthesis of the broad field it represents—a synthesis which draws eclectically on the vast body of materials available, including comprehensive inquiries like the National Survey of Secondary Education and hundreds of special studies both in print and as yet unpublished.

(3) This text is designed to be serviceable in the administration of secondary schools irrespective of their size. Most of the principles and practices appropriate to internal organization and management of secondary schools do not differ notably for schools of different enrollments; but wherever the treatment requires it, special consideration is given to problems in larger or smaller schools. Usually this special consideration is given in the running interpretation, although at certain points it is done in special sections or paragraphs.

(4) The treatment emphasizes practice without neglecting essential theory. The fact that all four collaborating authors have had experience both in directing the affairs of secondary schools and in giving university courses on secondary-school administration assures a balanced recognition of practical and theoretical aspects.

Acknowledgment of published materials quoted or otherwise drawn upon is made at appropriate points throughout the book. Publishers have been uniformly courteous in granting permission to quote their publications.

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Chapter I

Scope and Function of Administration

INCREASING SCOPE AND COMPLEXITY OF SECONDARY-SCHOOL MANAGEMENT

Factors of the increase. It is a matter of frequent remark among persons who have been in touch with secondary schools for some years that the tasks of directing them have been growing rapidly in scope and complexity. Whereas less than a generation ago the responsibilities involved in directing the affairs of a high school were, and in a large part could be, learned exclusively by experience, competence in modern secondary-school management requires not only experience but also extensive and intensive study of the problems represented.

A number of factors have contributed to this increased scope and complexity of the tasks, and it is in place to mention a few, at least, of these factors in the opening section of a treatise on administering the secondary school. The factors named may be readily identified as social and educational trends.

(1) First among the trends that should be mentioned is the much-discussed influx of youth into secondary-school grades. To be specific, it may be recalled that the proportion of the population 14 to 17 years of age (inclusive) enrolled in high schools increased from approximately a tenth of all in 1900 to almost seven tenths in 1936. In many communities practically all youth of secondary-school age are in school.

(2) This astonishing popularization of secondary education has been accompanied and followed by an expansion of school programs to serve the influx. It is now a commonplace to say that the popularization has been characterized by increased diversity in ability, interests, and backgrounds of pupils, which called for rapid expansion and differentiation of the offering (including the extracurriculum), modification of teaching procedures, development of programs of guidance, and other types of extension of educational service. The added provisions required additional accommodations and other material facilities.

(3) The recent period has also seen rapidly changing conceptions of the purposes of secondary education, in large part in harmony with increased popularization and the expanding educational program. Whereas, it is often asserted, the overwhelming emphasis in purpose and practice at the turn of the century was on preparation for college for selected pupils, purposes are now dominantly cast in terms of aspects of life and living, such as citizenship, health, recreation, and vocation.

(4) The period has been one of rapid increase in the proportion of schools with large enrollments. The number of small secondary schools still reaches into thousands, but the influx unquestionably made for larger schools.

(5) Last to be listed is a development rather different in kind from the foregoing trends, but one that has unquestionably imposed increasing responsibilities and requirements on those who essay direction of the modern secondary school. Reference is made to the mounting body of technical knowledge bearing on secondary-school management in its many aspects. The generation since 1900 has been one of rapid development of the educational profession through contributions of research and of experience in the complex school situation. Although these contributions of research and distillations from experience recorded in voluminous educational publications are of such a nature as to foster effectiveness in instruction and administration, they cannot do so unless the secondary-school worker makes extensive effort to acquaint himself with the significance they have for his complex problems.

Indications of the scope. Some hint of the scope of modern secondary-school management is afforded in the scope of two recent major inquiries. The first of these is the National Survey of Secondary Education,[1] the content of which is suggested in the following titles of monographs of the report. The list does not include the summary monograph (Number 1), which undertakes to present the gist of this three-year inquiry into secondary education subsidized by a Congressional appropriation and carried on under the auspices of the Federal Office of Education.

MONOGRAPH NUMBER

2. The Horizontal Organization of Secondary Education—A Comparison of Comprehensive and Specialized Schools (Including vocational education)
3. Part-Time Secondary Schools
4. The Secondary-School Population

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[1] United States Office of Education, Bulletin No. 17, 1932.

MONOGRAPH NUMBER

5. The Reorganization of Secondary Education (Junior high-school reorganization and junior colleges)
6. The Smaller Secondary Schools
7. Secondary Education for Negroes
8. District Organization and Secondary Education
9. Legal and Regulatory Provisions Affecting Secondary Education
10. Articulation of High School and College
11. Administration and Supervision
12. Selection and Appointment of Teachers
13. Provisions for Individual Differences, Marking, and Promotion
14. Programs of Guidance
15. Research in Secondary Schools
16. Interpreting the Secondary School to the Public
17. The Secondary-School Library
18. Procedures in Curriculum Making
19. The Program of Studies (Including the schedule and schedule making)
20. Instruction in English
21. Instruction in the Social Subjects
22. Instruction in Science
23. Instruction in Mathematics
24. Instruction in Foreign Languages
25. Instruction in Music and Art
26. Nonathletic Extracurriculum Activities
27. Intramural and Interscholastic Athletics
28. Health and Physical Education

Even this long list of monographs of the National Survey is not comprehensive of all the concerns of secondary education. At least three major areas not directly represented in it are the financial aspects of secondary education, the training of secondary-school teachers, and the material aspects, including building, equipment, and supplies. The first two were omitted because, at the time the survey was outlined, two additional nation-wide surveys, concerned with finance and teacher education at both elementary-school and secondary-school levels, were being projected by the Office of Education and were subsequently authorized by the Congress. Housing and other material facilities were not included because of the limitations of the budget for the Survey.

The second nearly-comprehensive inquiry suggestive of the scope of secondary-school keeping is the Co-operative Study of Secondary School Standards, which was begun in 1933 and the purposes of which are implied in the following questions:

1. What are the characteristics of a good secondary school?
2. What practicable means and methods may be employed to evaluate the effectiveness of a school in terms of its objectives?
3. By what means and processes does a good school develop into a better one?
4. How can regional associations stimulate secondary schools to continuous growth? [1]

With such purposes the Study could hardly leave out of account any aspect of secondary education, and its inclusiveness is somewhat apparent even in the restricted number of major sections under which practices and conditions in schools were investigated. These groupings are as follows:

Section	
B.	Philosophy and Objectives
C.	Pupil Population and School Community
D.	Curriculum and Courses of Study
E.	Pupil-Activity Program
F.	Library Service
G.	Guidance Service
H.	Instruction
I.	Outcomes
J.	School Staff
K.	School Plant
L.	School Administration [2]

Comprehensiveness would be much more apparent if space were taken here to reproduce all the subsections of the major sections. This assertion may be supported at least by illustration. For example, the section "Pupil-Activity Program" has these subsections indicative of its scope: "General Nature and Organization," "Pupil-Participation in School Government," "Home Rooms," "The School Assembly," "School Clubs," "School Publications," "Physical Activities," "Finances of Pupil Activities," and "Social Life and Activities." [3]

THE ADMINISTRATIVE FUNCTION AND FUNCTIONARIES

Delimiting administration. A treatise on administering the secondary school could hardly be planned without reference to some working definition of *administration*. In common parlance the term *administration* is taken to comprehend the management of activities represented in all aspects of inquiries like the National Survey of Secondary Education or the Co-operative Study of Secondary School Standards, content of which was outlined above. The best theory seems to follow this broad concept. However, for practical purposes in much professional discussion, the concept of administration is more restricted in scope. In some of these discussions the whole field of direction is separated into organization, management, and supervision.[1] Only the first two of these are regarded as *administration* in the typical working concept of the term.

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[1] *How to Evaluate a Secondary School*, 1940 Edition. Washington, D. C.: Co-operative Study of Secondary School Standards, 1940. P. 11.

[2] *Evaluative Criteria*, 1940 Edition. Washington, D. C.: Co-operative Study of Secondary School Standards, 1940. P. 3.

[3] *Ibid.*, p. 25.

It should help to an understanding of the function of administration to take a glance at the function of supervision. The traditional concept of function for supervision is the improvement of teaching. Recent discussions have tended to modify the concept in the direction of the modified conception of teaching. The conception of teaching now emphasizes more than formerly activities of pupils rather than of teachers, the teacher being a leader and co-operator in educative pupil activities. Supervision, according to the emerging concept, is aimed at improving this co-operative leadership in the educative pupil activities. Whether the traditional or the newer concept is accepted, it is apparent that supervision has to do *directly* with the educative process. Administration, on the other hand, because it includes activities in organization and management of the school, has to do *less directly* with the educative process.

It is no disparagement of administration (in the more restricted sense) in comparison with supervision that it thus bears less directly on the educative process itself. To provide, by means of organization and management, the conditions under or the facilities with which the educative process may go forward effectively is a function no less important than supervision.

One can hardly assume that this distinction between administration and supervision will always make possible the ready identification of an activity in directing the affairs of the school as one or the other. Argument may easily arise as to whether a given activity bears more or less directly on the educative process, and the areas of activity that some persons might classify as supervision would without question overlap on what others might regard as administration. The difficulty arises from the essential unity of the whole process of directing the school. In the circumstances it seems advisable for authors who select and prepare content for treatises on school administration, in order to assure comprehensiveness, to be liberal in applying the criterion of "less direct" bearing on the educative process. At several points in this book it may justifiably be felt that there has been included content which seems appropriate for treatises on secondary-school supervision, although in the main the content deals with the managerial and organizational aspects of direction.

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[1] One such discussion is to be found in Philip W. L. Cox and R. Emerson Langfitt's *High School Administration and Supervision*, pp. 52–53. New York: American Book Company, 1934.

The scope of this book. In harmony with the working concept of administration as accepted here, this book is concerned largely with the organization and management of the secondary school. The seven chapters next following are concerned with organizing and managing the educational program, broadly conceived, of the school. In this group of chapters, making up approximately half the book, consideration is given to the program of studies (Chapter II), the vocational program (Chapter III), the health program (Chapter IV), the extra-curriculum (Chapter V), the guidance program (Chapter VI), the program for individual differences (Chapter VII), and the schedule (Chapter VIII). The next four chapters deal with problems of the professional staff: the first three, with the teaching staff (selecting and rating, Chapter IX; adjusting the teaching load, Chapter X; the salary problem, Chapter XI), and the last of the group, with administrative personnel and organization (Chapter XII). Consideration of organization and management of the educational program and the staff is followed logically by chapters on buildings and grounds (Chapter XIII); equipment and supplies (Chapter XIV); office standards and practices (Chapter XV); and the administration of finance (Chapter XVI). The treatise is rounded out by consideration of relationships of secondary school and community (Chapter XVII).

A word may not be out of place concerning aspects of education, besides the content that all would account as dealing with supervision, that are omitted from consideration in this book. A treatment of problems of the curriculum in respects beyond its organization and management hardly belongs in a specialized consideration of administration. The reason for omission of methods or procedures in teaching, with its related psychology, is so obvious as not to require statement. Certain subjects usually included in books dealing with "principles of secondary education" are not given special treatment. Reference is here made to consideration of the history of secondary education, its objectives, and the secondary-school population. Such matters are not to be ignored, but it is more appropriate to bring them up in dealing with areas of administration. For example, objectives are taken into account in proposals for organizing the program of studies and are present by implication at many other points, while the nature of the secondary-school population figures in discussion of the program for individual differences, the guidance program, and other provisions.

The consideration of certain phases of external organization of secondary education also is omitted from this treatise. In particular, no treatment of individual units, like the junior high school or the senior high school, or of district organization is provided in separate chapters. However, problems of internal organization of the different types of these school units are dealt with as problems are encountered in the sequence of chapters already indicated, and the effect of district organization on administration is considered wherever pertinent.

The functionaries in administration. Some impression of the scope and function of secondary-school administration is supplied by evidence concerning the administrative functionaries found in the schools. The National Survey of Secondary Education made inquiry concerning the administrative officers provided and reported the facts for 368 schools.[1] The schools were located in all sections of the country and were grouped by the size of the cities, the high schools in Group I being located in cities with populations over 100,000; those in Group II, in cities of 30,000 to 100,000; in Group III, of 10,000 to 30,000; and in Group IV, of 5000 to 10,000. The median enrollment of the high schools in the four groups were, respectively, 1187, 900, 667, and 436. For all groups combined the median was 721,[2] a figure indicating schools dominantly of good to large size.

The percentages of the schools of each group and of all the groups combined with different administrative and supervisory officers in addition to the principal are reported in Table 1. Although many of these officers, especially the "subject supervisors" and "department heads," combined both administrative and supervisory responsibilities, it may be assumed that for the majority the emphasis was on administration. As determined by the percentages in the column for "all groups" of schools, the functionaries most often found are, in order of frequency, the assistant principal, subject supervisors, heads of departments, deans of girls, and counselors. Inquiry was not made directly concerning the librarian, but it may be assumed that this functionary, who combines

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[1] Fred Engelhardt, William H. Zeigel, Jr., and Roy O. Billett, *Administration and Supervision.* United States Office of Education, Bulletin No. 17, 1932. Monograph No. 11. Chap. III.

[2] *Ibid.*, pp. 5–7.

TABLE 1

Percentages of Secondary Schools with the Different Types of Administrative and Supervisory Officers [1]

Types of Officers	Group				All Groups (368)
	I (108)*	II (82)	III (111)	IV (67)	
Assistant principals	68.6	47.6	46.0	50.8	53.8
Counselors and advisers					
General	17.6	12.3	3.6	1.5	9.3
Boys	6.5	1.2	—	—	2.2
Girls	7.4	1.2	0.9	4.5	3.5
Directors of guidance	2.8	4.9	2.7	3.0	3.3
Deans					
General	9.3	—	0.9	—	3.0
Boys	3.7	6.1	3.6	3.0	4.0
Girls	13.0	19.6	20.0	22.4	18.0
Directors of attendance	1.8	2.4	1.8	3.0	2.2
Directors of extracurriculum	0.9	2.4	—	—	0.8
Directors of cafeterias and lunchrooms	1.8	2.4	0.9	4.5	2.2
Registrars	2.8	1.2	1.8	—	1.6
Heads of departments	38.9	36.6	35.2	34.4	36.4
Subject supervisors	16.7	41.5	64.0	44.8	41.6
Doctors	—	1.2	1.8	1.5	1.1
Nurses	0.9	2.4	3.6	3.0	2.5
Visiting teachers	4.6	1.2	—	—	1.6
Others	4.6	6.1	3.6	6.0	4.9

* The numbers in parentheses indicate the numbers of schools represented.

administration, instruction, and sometimes supervision, is also among those more frequently found.

The average administrative staff in this group of 368 schools, in addition to the principal and clerical assistants, had 4.3 members. For the schools of Group I the average was 5 members and for the schools of Group IV, 3.1 members.[2] The average staff in independent secondary schools (township, community, county, and union high schools) was smaller,[3] a fact probably explained by the typically smaller enrollments of these schools. In the smallest schools, to be sure, the principal is usually the sole administrative functionary, and he must divide his time between directing the school and teaching.

The evidence reported does not take account of the participation of teachers in administration. Extended recent discussion in educational literature and at educational meetings of "democracy in administration" and "teacher participation in school administration" justifies the belief that we are experiencing a notable trend in the direction of a sharing by the whole staff in the determination of policies, although it may be seriously doubted that we shall have marked decentralization in the actual work of organizing and managing the school.

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[1] *Ibid.*, p. 36.

[2] *Ibid.*, p. 37.

[3] *Ibid.*, p. 38.

Reference is made again to the purpose in calling attention here to the kind and number of functionaries: it has been to aid in indicating the scope and function of secondary-school administration. The more detailed consideration of certain of the functionaries with respect to such matters as training, responsibilities, and the like is left for one of the chapters concerned with the professional staff of the school (Chapter XII).

THE LITERATURE OF SECONDARY-SCHOOL ADMINISTRATION

Three classes of literature. In concluding this general and introductory chapter on the scope and function of administration at the secondary-school level, it seems desirable to refer to the literature available to persons who wish to make and keep themselves conversant with the field. For convenience in listing and consideration, the material may be placed in three main classes: (1) general treatises, (2) reports of comprehensive and special inquiries, and (3) educational periodicals.

The general treatises on secondary-school administration. A number of general treatises on secondary-school administration have been published. The list below includes those that came off the press in 1925 and later. Those published earlier are not listed, because much of their content is obsolescent. Books on "principles of secondary education" are not included either, even though they have content significant for administration.

Brown, Edwin J. *Secondary-School Administration: Its Practice and Theory.* Boston: Houghton Mifflin Company, 1938.

Cook, William A. *High School Administration.* Baltimore: Warwick & York, Inc., 1926.

Cox, Philip W. L., and Langfitt, R. Emerson. *High School Administration and Supervision.* New York: American Book Company, 1934.

Douglass, Harl R. *Organization and Administration of Secondary Schools.* Boston: Ginn and Company, 1932.

Edmonson, James B.; Roemer, Joseph; and Bacon, Francis L. *Secondary School Administration.* New York: The Macmillan Company, 1931.

Foster, Herbert H. *High School Administration.* New York: Century Company, 1928.

Johnson, Franklin W. *The Administration and Supervision of the High School.* Boston: Ginn and Company, 1925.

Maxwell, Charles R., and Kilzer, L. R. *High School Administration.* Garden City, New York: Doubleday, Doran & Company, Inc., 1936.

Newsom, N. William, and Langfitt, R. Emerson (General Editors). *Administrative Practices in Large High Schools.* New York: American Book Company, 1940.

Rice, George A.; Conrad, Clinton C.; and Fleming, Paul. *The Administration of Public High Schools through Their Personnel.* New York: The Macmillan Company, 1933.

Roberts, Alexander C., and Draper, Edgar M. *The High-School Principal, as Administrator, Supervisor, and Director of Extracurricular Activities.* Boston: D. C. Heath and Company, 1927.

Reports of comprehensive and special inquiries. The two nearly comprehensive inquiries of recent years having significance for secondary-school administration were referred to earlier. They are the National Survey of Secondary Education and the Co-operative Study of Secondary School Standards. Reports of special studies having meaning for secondary-school administration are so numerous as to make it impossible to list them at this point. However, hundreds of them are drawn upon at appropriate places, while most of these and still others are to be found among the "Selected References" at the ends of the chapters.

Educational periodicals. Numerous educational periodicals contribute significantly to the literature of secondary education, many publishing studies or other articles significant for secondary-school administration. Among the most useful of these are the journals in the following list. Those marked with asterisks (*) are given over exclusively, or almost so, to the concerns of the secondary school. The number in parentheses following the name of each journal indicates the number of issues per year.

The American School Board Journal (12)
540 North Milwaukee Street, Milwaukee, Wisconsin
* *Bulletin of the Department of Secondary-School Principals* (8)
5835 Kimbark Avenue, Chicago, Illinois
* *California Journal of Secondary Education* (8)
Haviland Hall, Berkeley, California
* *Clearing House* (9)
207 Fourth Avenue, New York, New York
Education (10)
120 Boylston Street, Boston, Massachusetts
Educational Administration and Supervision (9)
10 East Center Street, Baltimore, Maryland

Educational Forum (4)
311 East 72 Street, New York, New York
Educational Record (4)
American Council on Education, 744 Jackson Place Northwest, Washington, D. C.
Harvard Educational Review (4)
Graduate School of Education, Harvard University, Cambridge, Massachusetts
* *High School Journal* (8)
University of North Carolina, Chapel Hill, North Carolina
Journal of Educational Research (9)
Public School Publishing Company, Bloomington, Illinois
Journal of the National Education Association (9)
1201 Sixteenth Street Northwest, Washington, D. C.
* *Junior College Journal* (9)
American Association of Junior Colleges, 744 Jackson Place Northwest, Washington, D. C.
The Nation's Schools (12)
919 North Michigan Avenue, Chicago, Illinois
North Central Association Quarterly (4)
Room 1439, University Elementary School Building, University of Michigan, Ann Arbor, Michigan
Occupations, The Vocational Guidance Magazine (8)
The National Vocational Guidance Association, Inc., 425 West 123 Street, New York, New York
Peabody Journal of Education (6)
George Peabody College for Teachers, Nashville, Tennessee
Phi Delta Kappan (9)
2034 Ridge Road, Homewood, Illinois
Progressive Education (8)
Progressive Education Association, 310 West 90 Street, New York, New York
Review of Educational Research (5)
American Educational Research Association, National Education Association, 1201 Sixteenth Street Northwest, Washington, D. C.
School Activities (9)
1515 Lane Street, Topeka, Kansas
School and Society (52)
525 West 120 Street, New York, New York
The School Executive (12)
470 Fourth Avenue, New York, New York
School Life (10)
United States Federal Security Agency, Office of Education, Washington, D. C.
* *School Review* (10)
Department of Education, University of Chicago, Chicago, Illinois
* *Secondary Education* (4)
Department of Secondary Education, National Education Association, 130 West 42 Street, New York, New York

Teachers College Record (8)
Teachers College, Columbia University, New York, New York
* *University High School Journal* (4)
University of California, University High School, Oakland, California

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. What factors in addition to those listed at the opening of the chapter have tended in recent years to make more complex the responsibilities of secondary-school management?
2. Discuss the assertion in this chapter that the activities of administration as defined are no less important than supervision.
3. Make a comparative analysis of several recent textbooks on secondary-school administration and draw conclusions concerning the concepts and scope of administration reflected in them.
4. Compare the content of some textbook in secondary-school administration with representative textbooks on the principles of secondary education, secondary-school curriculum, and supervision in secondary schools, to note similarities and differences in scope.
5. From a professional diary kept over the period of one or more weeks by some principal, assistant principal, department head, or other administrative functionary in a secondary school make an analysis and classification of his activities under the headings Administration, Clerical Work, Teaching, Supervision, etc.

NOTE. The fact that the third section of this chapter deals with the literature of secondary-school administration makes unnecessary the introduction at this point of a list of "Selected References" comparable to the lists at the ends of all remaining chapters.

Chapter II

Administering the Program of Studies

DEFINITION AND POINT OF VIEW

Definition. "Program of studies," as here considered, refers to the offering of the school and the manner of organizing that offering in administering it to pupils. Although, as will be seen below, it takes diverse forms in any considerable number of schools, it typically consists of the "courses," or "subjects," offered in the school that are indicated as "required" or "elective" in the different years, or grades, represented.

The "program of studies" should not be confused with the daily or weekly program or schedule, which is dealt with in Chapter VIII. Important relationships exist between these two features of internal organization of the school, especially as the schedule is the means of putting the program of studies into effect in pupils' daily or weekly programs. The term "program of *study*" is often erroneously substituted for *program of studies*, probably because persons who use the incorrect term forget that the offering is typically made up of "studies," that is, subjects or courses.

The point of view in the treatment. The approach in the treatment here accorded the program of studies is as to an immediate, practical problem and not to a remote, theoretical one. Organizing the program of studies is largely the problem of arranging the curriculum of the school for operation. The treatment assumes for the most part that the offering of the school has been determined and that the task before the principal is to organize that offering so as to serve best with it the needs and interests of the pupils and the society of which they are a part. A manual of administration, following the working concept announced in Chapter I, is not the place for a discussion of curriculum making in the sense of determining the subjects or areas in which instruction is to be given or of determining the content, or experiences, to be emphasized within those subjects and areas. The place for such discussion is a treatise on curriculum making.

At the same time, the treatment here accorded the problems of organizing and administering the program of studies is dynamic rather than merely static in outlook. It is made so by taking account of trends in this feature in large numbers of schools—trends which inevitably reflect changes in the curriculum. It is made so, again, because practices in innovating schools are to some extent illustrated. Also, it recognizes certain major problems involving the relationship of the program of studies to curriculum making in a way that should stimulate their solution in constructive ways. After all, the boundary between administration and supervision (an important responsibility of which is improving the curriculum) is not so unequivocally fixed and definable that issues of the curriculum do not protrude into the areas of administration.

A SURVEY OF TRENDS

Source and nature of information on trends. A reliable source of information on practices and trends in programs of studies is the National Survey of Secondary Education, which, because of the importance of the problem, devoted one of its larger monographs to it.[1] The monograph reports the results of eleven distinct, although related, analyses of programs of studies, five at the junior-high-school level and six at the senior-high-school and four-year-high-school level. All are investigations of trends, and an unusual but desirable feature of almost all is that they report trends *within identical groups of schools.* For example, one investigation at the junior-high-school level analyzed the two sets of programs of studies for the same group of sixty junior high schools at two periods ten to fifteen years apart. The procedure in analysis was such as to disclose certain trends both in the curriculum and in the make-up of the program of studies, illustrating their interdependence.

Trends at the junior-high-school level. The main trends at the junior-high-school level for the ten-year to fifteen-year period prior to 1930 may be summarized as follows:

(1) The relative importance in the total offerings of the different subject groups has undergone considerable change. The nonacademic

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[1] A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *The Program of Studies.* National Survey of Secondary Education, Monograph No. 19. United States Office of Education, Bulletin No. 17, 1932.

See also Leonard V. Koos, "Trends in Secondary-School Programs of Studies," *School Review,* XLI (September, 1932), 497–507. The article is a summary based on the investigations reported by Loomis, Lide, and Johnson.

gained at the expense of the academic subjects. The only academic subjects to experience notable gains in the number of the offerings are the group of social studies, whereas in the nonacademic groups increments were found for fine and practical arts, commercial subjects, and physical education.

(2) In harmony with the extension in the offering in the social studies is the increased amount of time given to what in the National Survey are called "social-integrative activities," that is, home-room activities, clubs, group-guidance activities, and programs in the assembly or auditorium.

(3) When attention is directed to the work which is *required* rather than to work which is merely *offered*, the largest increments in the number of periods required have gone to the social studies, to physical education, and to the social-integrative activities. Smaller gains were made in the numbers of periods of required science.

(4) The tendency was apparent to prescribe increasing proportions of all work, or, to put it conversely, to decrease to some extent the variable, or elective, portions.

(5) The portions of the curriculum prescribed for all pupils in grades VII and VIII, on the one hand, and in Grade IX, on the other, are not so far apart as formerly, either in quantity or in the nature of the content. The former difference between grades VIII and IX in this respect was a reflection of the poor articulation within the junior-high-school curriculum. The chief obstructive influences to articulation at this point have been the admission requirements to colleges and too great respect for the Carnegie unit, in terms of which the college-admission requirements are almost universally stated. Now that standardizing agencies and higher institutions are lifting their oppressive hands from the ninth-grade curriculum, we should see more rapid progress toward articulating this curriculum with that of the first two grades of the junior-high-school period.

(6) One of the most pronounced trends in the junior-high-school program of studies is the displacement of specialized courses by more general courses. In English this displacement is reflected by the rapid disappearance of courses with such names as "grammar," "composition," "reading," "spelling," and "penmanship" and the emergence in their places of courses reported simply as "English" or, at most, of courses in the two main phases, language and literature. In the social studies the displacement is shown in the dropping out from many programs of courses designated "geography," "United States history,"

and "community civics" and the use simply of the term *social studies.* In mathematics, courses in arithmetic in grades VII and VIII and in algebra in Grade IX have been giving place to "general mathematics" or "mathematics" in all three grades.

Trends at the senior-high-school and four-year-high-school level. Following are the more significant trends at this level:

(1) Over the period of about a quarter century, in one large group of schools investigated, there was a rapid increase in the number of curriculums offered. The word *curriculum* is here used in the sense of a schematic arrangement, or pattern, of courses designed to meet the need of some particular group of pupils.

(2) During the same interval college-preparatory curriculums decreased from well over half to about a third of the whole number of curriculums offered. Correspondingly, general curriculums and commercial, industrial-arts, household-arts, fine-arts, and other curriculums, as a group, shifted to the position of numerical dominance.

(3) The total number of different courses offered (in the sense of subjects or major divisions of subjects) increased with astonishing rapidity.

(4) The increment of the total offering spread to all subject groups, but much more to certain groups than to others. Fields experiencing the largest proportionate increments were English, the social studies, commercial subjects, industrial arts, household arts, fine arts, and physical education. Fields experiencing the least expansion were science, mathematics, and foreign language—three of the five academic-subject groups.

(5) A slight tendency was found toward increasing the total number of units in subjects prescribed for all pupils. Much more significant was the shift in the nature of the required work, which was away from foreign language and mathematics and toward English, the social studies, and physical education.

(6) Investigations of work actually taken by graduates during their four high-school years bear out the trends already reported. English, the social studies, and the nonacademic subjects show marked gains, whereas foreign language and mathematics show marked losses. In some schools the nonacademic subjects by 1930 had come to claim from a third to two fifths of all the pupils' time in the classroom.

More recent trends. The trends just reported are based on evidence establishing the description through the school year 1929–30. Information on trends since 1930 is more scattered and less reliable, but it is probably safe to assume continuation in the same direction, with one major exception. Results of investigations during the depression indicate some reduction in the total offerings of the schools, with a partial disposition to shrink the offering in the more recent additions to the curriculum—in what unfriendly critics regard as the "fads and frills."

Significance of the trends. With the exception noted, from which there has been in all probability some recovery by now, the trends have been toward the diversification of the offering, which increases the opportunities to ascertain and to recognize individual differences among the increasingly diverse secondary-school population. The same trends also make possible the recognition of more aspects of complete living than were served by the older offering. The more recent offering is to a larger extent cast in terms of immediate values instead of the remoter and deferred values of college preparation and the presumedly pervasive mental discipline. Instances of this fact are found in the increased emphasis on training for participation in social and civic life, for maintenance of health, and for sharing the aesthetic heritage represented in art and music. The trend, again, is toward the general and away from the specific, as concerns subjects of study, although this trend is more noticeable at the junior-high-school level than at the senior-high-school level. In this aspect the trend is in the direction of the integrated and away from the piecemeal curriculum.

PROBLEMS OF CURRICULUM MAKE-UP

The curriculum in the program of studies. The section of the chapter immediately following this one describes the various types of programs of studies. Whatever the type of program of studies, a given pupil pursues within it during his secondary-school career a pattern of subjects, or, in schools with integrated programs, areas of activity or experiences. The term *curriculum*, as used in the foregoing section, is customarily applied to such a pattern. In many programs, as will be subsequently reported, more or less specialized curriculums, with special designations, are mapped out, each planned to serve a group of pupils who are assumed to have similar interests and needs. It is desirable, in advance of scrutinizing the types of programs of studies and these curriculums, to discuss certain problems involved in the make-up of a satisfactory curriculum for any pupil. The problems have to do more with the patterns of subjects or areas than with the details of internal content, and they arise for the most part out of consideration of the trends disclosed in the foregoing section.

Recognition of common and special needs and interests. One of the most important problems centers around the adequate recognition of both the common and the special needs and interests of pupils. For some years there has been advocacy of prescribing a general curriculum for all pupils, together with discussion of and experimentation with a core curriculum. However, few advocates have gone so far as to urge a single curriculum entirely without opportunity for variation.

The question of the proportion of common elements, or of a proper balance of common and special elements, is best answered in reference to the major areas of life and living. For example, life in its social-civic aspect calls chiefly for common elements; health, for common elements; vocation, for special or differentiated elements; and recreation, in part for special and in part for common elements. It should be obvious that common elements will constitute a larger portion of the pupil's curriculum at the junior-high-school level than at the senior-high-school level and that, on the whole, special elements will enlarge with his progress through secondary-school grades. Recent developments in what is referred to as the *core curriculum* predict further increase for common elements.

It will be well here to distinguish between *common elements* and *general education*, which are frequently confused in current discussions of the curriculum and sometimes are regarded as completely synonymous terms. The terms are not synonymous, *general education* being broader in scope than *common elements.* The term *general education* is usually applied to all nonoccupational education, which includes not only the elements desirably common to all but also specialized elements not occupational. Following the classification of areas of living indicated in the preceding paragraph, within general education would appropriately be included that large portion of education for recreation which is special and which in generous part need not and should not be common to all.

Preparation for college. A problem usually looming large in considering the proper make-up of the pupils' curriculums is the extent of allowance to be made for preparation for college. It is in reality a phase of the problem just considered; that is, of the recognition of common and special needs of pupils, since preparation for college is a special need applying only to pupils continuing to levels beyond the high school. These pupils, for the average high school, now include fewer than a majority of all who graduate and an even smaller proportion of all who attend. The problem is, however, of such great practical importance as to deserve separate consideration. It derives its importance from at least two considerations, one of which is that subjects required for admission to college are sometimes introduced as requirements into curriculums presumably intended for non-college-going students, against the likelihood that some students pursuing these curriculums will change their minds and decide to seek admission to college. The other consideration is that the total extent of these required subjects is so great as to interfere with giving students who plan to enter college a satisfactory balanced recognition of what may properly be regarded as the common elements of the program.

Several studies reported during the last decade seriously discredit the practice of the colleges in prescribing specific subjects for entrance. Douglass, at the conclusion of an extended investigation of the relationship of a number of "factors" and the average college mark of students in the University of Oregon, states that "there is no significant correlation between the number of units of credit earned in high school in any subject-matter field and scholastic success in college." [1] If more emphasis is needed in order to make this blunt statement fully clear, it is provided in the following quotation:

> The entrance requirements of the University include the offering of high-school credits in designated amounts in specified fields. No more striking example of the application of fallacious theory to educational administration may be mentioned. Not only do the results of this study indicate that such entrance requirements contribute practically nothing to the differentiation of good from poor college risks, but all other studies of similar nature agree in this respect. In fact, no record can be found by any thoroughgoing objective investigation ever conducted which affords any rational support for the practice of conditioning general admission to the University upon the completion of prescribed units of certain favored fields.[2]

Another writer, Yates, after carefully investigating the relationship of the pattern of high-school subjects taken to success as measured by marks in three institutions—the University of Kentucky, Indiana University, and the University of Cincinnati—concluded that his inquiry did not find sufficient facts "to justify colleges in prescribing certain subjects for college admission." [1]

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[1] Harl R. Douglass, *The Relation of High School Preparation and Certain Other Factors to Academic Success at the University of Oregon.* University of Oregon Publication, Education Series, Vol. III, No. 1 (September, 1931), p. 56.

[2] *Ibid.*, p. 56.

Since the controversy over the significance of the pattern of the high-school curriculum in predicting college success usually centers on specific subjects, it is in point to draw on the findings of two investigations which inquired into the relationships for high-school mathematics and Latin. The investigation for mathematics, reported by Douglass and Michaelson,[2] ascertained for almost four hundred students in the University of Oregon the relationship between the number of "semester credits" in high-school mathematics and the average college marks in various fields during the first two college years. The conclusion here is that, "with the exception of the college mark in mathematics [for which the coefficient was only .28], all zero-order coefficients approximate zero as far as predictive merit is concerned. When intelligence is held constant, the resulting partial correlations, including that with college mark in mathematics, approximate zero." [3] The average mark in high-school mathematics "correlated significantly with the average college mark in every field," and the correlation of the high-school mark in mathematics with the college mark in the same field (.55) is higher than that with any other college subject. However, the correlation of the average high-school mark in all subjects with the college mark in mathematics is even higher (.587), which means that it is a better basis of prediction of success in college mathematics.[4]

The investigation concerning the significance of high-school Latin in preparation for college is by Smith and Douglass; [5] it inquires into this relationship for more than a thousand students who entered the College of Science, Literature, and Arts at the University of Minnesota. To control the factor of general ability, students were placed in paired groups on the basis of percentile rank on a college-aptitude test administered to all freshmen entering the University of Minnesota. The authors report that "students who study Latin in high school may be expected to make, on the average, slightly higher marks in their first year at an arts college than pupils of equal ability who have studied German or who have studied no foreign language."[1] The difference between students who have had two years of high-school Latin and those who have had no language is 0.16 of a grade step, which, they say, "is not large enough to be completely reliable statistically."[2] In interpreting the differences, they express the caution that the slightly superior college marks may be in part "resultant from superior industry and interest in intellectual and verbal activities, which, instead of being an outcome of the study of Latin, are probably reasons for the student's decision to study Latin."[3]

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[1] James Anderson Yates, *The Type of High School Curriculum Which Gives the Best Preparation for College.* Bulletin of the Bureau of School Service, Vol. II, No. 1 (September, 1929), p. 105. Lexington: University of Kentucky Press.

[2] Harl R. Douglass and Jessie H. Michaelson, "The Relation of High-School Mathematics to College Marks and of Other Factors to College Marks in Mathematics," *School Review*, XLIV (October, 1936), 615–619.

[3] *Ibid.*, p. 615.

[4] *Ibid.*, p. 618.

[5] Mary Elizabeth Smith and Harl R. Douglass, "The Relation of High-School Latin to Marks in the First Year of Arts College," *School Review*, XLV (November, 1937), 695–701.

With any particular pattern of high-school subjects all but out of the way in a consideration of the factors that make for college success, the issue turns on what have been established as significant factors. The trend of evidence supports reliance on some measure of the success of the student in his high-school work joined with a measure of his ability as shown in a test of intelligence or college aptitude. Douglass concluded that "the best single type of prognostic data is the average high-school mark" and that the best combination of data is this average and "a good intelligence test."[4] Johnston established the effectiveness in prognosis of a combination of percentile rank in high-school graduating class and percentile rank on a college-aptitude test.[5]

One may judge from the current status of requirements for entrance in terms of subjects prescribed that the import of studies tending to minimize the significance for success of particular high-school subjects has not penetrated to many higher institutions and has not yet had all desirable influence.[6] On this account persons responsible for the formulation of curriculums in secondary schools are still forced to face the problem of preparation for college in something like its traditional terms. What are they to do? They should, of course, try to help the college authorities to an understanding of studies like those cited above—as it were, to spread the light in the dark places—in order to bring about ultimate modification of requirements in harmony with the findings of these studies. They have, however, the more immediate obligation to pupils now in school who may plan to enter colleges adhering to traditional requirements. For the time being, they will find it necessary to see that such pupils, under a program of guidance, include the unjustifiably favored subjects in their curriculums, at the same time seeing that efforts are made to reduce to a minimum the interference with the individual pupil's having a well-balanced curriculum that recognizes all essential areas of living. It should not be forgotten that the same program of guidance may be used to effect a quiet but potent boycott of those higher institutions showing the greatest unwillingness to lift their oppressive hands from the secondary-school curriculum. Some justification for advising pupils to avoid higher institutions that prescribe conventional patterns of subjects for admission is provided in the high probability that, where authorities in charge adhere to tradition in this respect, they are likely also to be administering a traditional curriculum at the college level.

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[1] *Ibid.*, p. 701.

[2] *Ibid.*, p. 697.

[3] *Ibid.*, p. 701.

[4] Harl R. Douglass, *op. cit.*, p. 55.

[5] J. B. Johnston, "Predicting College Success for the High-School Senior," *Vocational Guidance Magazine* (now *Occupations*), VI (April, 1928), 289–294.

[6] Evidence concerning the recent status and trends of requirements for entrance to a sampling of higher institutions may be found in Millard E. Gladfelter, "Status and Trends of College-Entrance Requirements," *School Review*, XLV (December, 1937), 737–749.

Differentiation within the core. A pressing problem of curriculum make-up in the modern secondary school is that of differentiation within the portion of the total offering which is prescribed for all pupils, the portion referred to by terms like *the constant subjects* and *the core.* The great variation in ability now typical of pupils in secondary schools makes it impossible to restrict this portion to identical experiences or activities for all pupils. A number of means of differentiation are listed and considered in Chapter VII, and the reader concerned with this problem will find it desirable to weigh these means from the standpoint of their suitability for achieving differentiation within the core. Two means likely to recommend themselves in this particular connection are ability grouping (together with the variant of "interest grouping") and procedures characterized by the unit assignment, although careful consideration will find others suitable for the purpose. Both the means named lend themselves to modification of the two traditional categories of instruction, content and method. Because a larger portion of a pupil's curriculum is incorporated in the core at the junior-high-school level than at the senior-high-school level, the problem of satisfactorily differentiating it is obviously greater at the lower of these two levels.

The Carnegie unit as an obstacle. Much is sometimes made of the hindrance to desirable curriculum make-up represented in the Carnegie unit. This unit is the counter of high-school credit—almost universally used in measuring the progress of the pupil toward high-school graduation and in indicating the amount of work required for admission to college. The traditional definition of the unit describes it as representing a year's study in any subject in the high school and constituting approximately a fourth of a full year's work. The definition arose in connection with the efforts of a committee operating under a Carnegie subvention during the later years of the last century, which undertook to lay the basis for standardizing colleges. One means of defining the college was that of indicating the extent of preparation required for admission. There is ground for disturbance in the fact that a means of standardizing colleges should have come to be so significant in the organization of the curriculum in the schools below and in some ways a cramping influence on it.

This cramping influence is found partly in the necessity, in conforming to the definition, of administering the curriculum in counters of *equal* magnitude as measured by time expended. The hindrance involved did not become so apparent while education was thought of merely as subject matter to be learned; but schoolworkers have grown increasingly aware of it as they have endeavored to administer instruction in terms of the needs of life and living, which we may be sure will not, as concerns the length of time required to recognize these needs adequately in the program of studies, break conveniently into units of equal magnitude. The hindrance extends also to efforts to effect a satisfactory and desirable integration of experiences, which often call for disruption of conventional subject-matter boundaries. It is certain that the inflexible Carnegie unit must give way to some method of measuring progress more in harmony with emerging concepts and practices.

In a sense, at the opposite extreme of the rigidity of the Carnegie-unit organization of the curriculum is the practice in many junior high schools of administering the offering in a confusingly large number of subjects. In an investigation of pupils' programs in junior high schools near Pittsburgh, Pennsylvania, Hutson and Keifer found the median numbers of subjects pursued to be 10.5, 10.4, and 8.7 in grades VII, VIII, and IX, respectively. Some pupils were found to be enrolled in as many as 13 or 14 different subjects.[1] This situation is referred to again in Chapter VIII on "Making the Schedule" and is there commented on at length; but it can be said here that such a situation must be conducive to the pupils' confusion, and it sets up almost insurmountable barriers to the integration of pupils' learning experiences. The trend toward general courses reported in an earlier section of the current chapter should be a wholesome offset to this extreme particularization of instruction. Administrative and teaching staffs should not delay putting into effect this and other means of simplifying pupils' programs.

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[1] Percival W. Hutson and Joseph C. Keifer, "Schedules of Junior High-School Pupils," *School Review*, XLVI (November, 1938), 673.

TYPES OF PROGRAMS OF STUDIES

The junior-high-school program of studies. In theory, four types of junior-high-school programs of studies exist, namely, the single-curriculum type, the pure multiple-curriculum type, the constants-with-variables type, and the combination type.[1] In practice, however, the number is being reduced to two main types, with some variation within the type. These two types are the last two—the constants-with-variables type and the combination type. For 60 junior high schools represented in a project of the National Survey of Secondary Education for the two periods 1915–20 and 1929–31, the number of schools with these two types of programs had increased from 50 (constants-with-variables, 28, and combination, 22) to 55 (constants-with-variables, 34, and combination, 21).[2]

(1) The nature of the *constants-with-variables* type of program of studies may be indicated by reproducing an illustrative program in use in the junior high schools of Oklahoma City, Oklahoma.

Grade VII

Required	*Elective*
English	None
Social science	
Arithmetic	
Homemaking (Girls)	
Shop (Boys)	
Art ($\frac{1}{2}$)	
Speech arts ($\frac{1}{2}$)	
Physical education, including health, and vocal music on alternate days	

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[1] Leonard V. Koos, *The Junior High School* (Enlarged Edition), pp. 145–168. Boston: Ginn and Company, 1927.

[2] A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *op. cit.*, p. 15.

Grade VIII

Required (4½ courses)

English
Social science
Arithmetic
General science
Physical education (½)

Elective (Choose 1)

Art
Speech arts
Music
Orchestra
Band
Homemaking
Woodwork
Metalwork
Mechanical drawing
Penmanship and spelling
Typewriting
Junior business training

Grade IX

Required (3 courses)

English
Social science
Algebra *or* Applied mathematics

Elective (Choose 2)

Art
Speech arts
Music
Orchestra
Band
Homemaking
Woodwork
Metalwork
Mechanical drawing
Typewriting
Junior business training
Physical education
Newspaper writing
French
Spanish
Latin

The sole comment to be made on this program of studies is that all courses in Grade VII are prescribed, placing the program of that grade in the single-curriculum group, although in the two remaining grades it shares in the characteristics of the constants-with-variables type.

Evidence in the National Survey of Secondary Education warrants the assertion that, during the ten-year interval from 1920 to 1930, junior high schools were moving toward a restriction of the variable portions of the program, more especially in grades VII and VIII than in Grade IX. This is the same thing as saying that they were increasing the constant portions. For the group of 60 schools already mentioned, the proportion prescribing all the subjects of the program in Grade VII increased between 1915–20 and 1929–31 from a third to about two thirds of the group; for Grade VIII the proportion increased from more than a fifth to more than a third, leaving, however, almost two thirds of the schools with some extent of variability in Grade VIII.[1]

(2) The *combination* type of program of studies usually is made up, in one or more grades of the junior high school, of different curriculums for different groups of pupils, "presumed to care," as the National Survey says, "for the major life purposes" of these groups.[2] It is therefore pertinent to consider the names of curriculums provided. This is made possible by presenting in Table 2, drawn from the report of the National Survey, the names of curriculums more frequently offered in the 60 junior high schools represented in the project already cited. No curriculum listed in this table was offered less than six times in the group of 60 schools either in 1915–20 or 1929–31. Among the titles of curriculums offered less than six times were "classical," "practical arts," "prevocational," "agricultural," and "scientific." (The total number of schools represented in each period is larger by several schools than the number found to be having combination programs of studies.)

Table 2 is devised to show the number of schools offering each curriculum in each grade (or in each half grade through grades VII and VIII). Careful scrutiny of the figures for each successive grade will make it clear that the proportion of schools offering the different curriculums increased from grade to grade, with the increment much more marked from Grade VIII to Grade IX than from Grade VII to Grade VIII. Comparison of evidence in the left and right halves of the table prompts the inferences (1) that junior high schools were, during the interval between the two periods, reducing the numbers of different curriculums offered and (2) that the opportunities for differentiation were being increasingly postponed to the last junior-high-school grade. The increase in the number of "general" curriculums is in reality in harmony with these main trends, since the very name of the curriculum suggests movement away from specialized curriculums.

The trend away from specialized curriculums is so impressive as to call for some attempt at explaining it. The plan of specialized curriculums was, in all probability, a borrowing from the traditional four-year high school and, as with other such borrowings without modification, was found through experience to be inappropriate for pupils of junior-

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[1] *Ibid.*, p. 29.

[2] *Ibid.*, p. 17.

TABLE 2

THE NUMBER OF SCHOOLS OFFERING CERTAIN CURRICULUMS IN GRADES VII A, VII B, VIII A, VIII B, AND IX IN 1915–20 AND 1929–31 [1]

CURRICULUM	1915–20						1929–31					
	GRADES						GRADES					
	VII A	VII B	VIII A	VIII B	IX	All	VII A	VII B	VIII A	VIII B	IX	All
Academic	7	7	8	8	10	13	3	2	5	4	8	10
Commercial	12	12	16	15	26	28	2	1	6	5	22	22
Home economics	2	2	6	5	13	13	2	1	4	3	13	13
Industrial	8	8	9	9	10	13	—	—	1	—	10	10
General	6	6	7	7	11	11	1	1	4	3	18	18
Manual arts	3	3	6	5	7	7	3	2	5	5	6	7
Classical	1	1	2	2	6	6	—	—	—	—	2	2
College preparatory	—	—	2	1	6	6	—	—	2	2	9	9

high-school age and grade. In addition, the conclusion of inappropriateness was hastened by the rapid exclusion, during the interval, of children from employment, which practically eliminated the junior high school as an institution of terminal training. In these circumstances, the specialization afforded in the different curriculums was found to be nonfunctional. The trend was probably sustained in part by the increasing reformulation by the colleges and universities of requirements for admission in terms of the three-year senior-high-school period—requirements that had previously been formulated in terms of a four-year period.

Urgency of flexibility in junior-high-school program of studies. The foregoing descriptions of trends in the two main types of programs of studies in junior high schools indicate that in both there has been some movement toward complete prescription of courses and away from variation or differentiation. The trend away from a *large* extent of variability or differentiation, where it exists, in the lower grade or grades of junior high schools is probably warranted. Moreover, as has just been pointed out, curriculum specialization at the junior-high-school level has turned out to be largely nonfunctional. However, some degree of flexibility through variables at this level is still desirable, even though we commit ourselves to a curriculum made up largely of common elements, and it is to be hoped that the trend will not be carried so far as to eliminate electives entirely in grades VII and VIII. Electives are urged on the junior high school by the need for exploration or tryout that is stressed in the chapter on the program of guidance and by the necessity of providing for individual differences.

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[1] Adapted from Table 5 in A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *ibid.*, p. 18.

It may be urged by some that junior high schools in which ability grouping is practiced have no need for variables in the offering, since the requirements in the different courses are modified to accommodate them to the different levels of ability. The answer to this contention is that differences among pupils are determined not only by *ability* but also by the *interests* of the pupils, and the different interests may well point to different groups of experiences that cannot be provided within the framework of constant subjects. A somewhat similar stricture applies to procedures characterized by unit assignments (see Chapter VII), whether these procedures are administered with or without ability grouping.

Programs of studies in senior and four-year high schools. Except in high schools with the smallest enrollments, the plans of organization of the program of studies in senior and four-year high schools are, as in junior high schools, restricted chiefly to two main types—the constants-with-variables type and the combination type. Small high schools, on account of the limited total offering, are often held to the single-curriculum type, in which all pupils have the same subjects. The problem of the small school will be considered later in the chapter.

TABLE 3

NUMBERS AND PERCENTAGES OF THE DIFFERENT TYPES OF PROGRAMS OF STUDIES IN USE IN CERTAIN SENIOR AND FOUR-YEAR HIGH SCHOOLS IN 1924–25 AND 1930–31 [1]

TYPE	1924–25		1930–31	
	NUMBER	PER CENT	NUMBER	PER CENT
Multiple-curriculum	2	1.3	—	—
Constants-with-variables	42	27.6	52	35.1
Combination	108	71.1	96	64.9
All	152	100.0	148	100.0

The relative frequencies of the different types of programs of studies in schools of good to large size are shown in Table 3, which presents evidence concerning the types in use in high schools in cities with populations ranging from 2500 to 20,000. Because the evidence is presented for two school years six years apart (1924–25 and 1930–31), trends for the short interval may be noted. The trends may be assumed to be reliable since, except for four schools failing to report for the later year, the two groups of schools are identical.

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[1] Based on Table 48 in A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *op. cit.*, p. 120.

The first plan of organization listed in the table, the "multiple" type, is best characterized as a "pure" multiple type in which the different curriculums offered are curriculums which are themselves fully prescribed; that is, in which there is no choice of subjects once the curriculum has been selected by the pupil. It may be seen that this type, used in only two of the schools in 1924–25, disappeared completely during the six-year interval to 1930–31. The small original frequency and the complete disappearance attest the unsuitability of this plan of organization for senior and four-year high schools—an unsuitability arising from its inflexibility.

Of the two main types, the combination type, made up of different curriculums within each of which some degree of election is permitted, is predominantly used. This predominance is the reverse of the predominance of the constants-with-variables type in junior high schools, as just reported. However, the constants-with-variables type is seen to have made some gain on the combination type—a fact which raises some question concerning the complete suitability of the combination type even for this level of schooling. This question of suitability is touched on again in the next section.

CURRICULUMS IN THE COMBINATION TYPE OF PROGRAM OF STUDIES

Number of curriculums offered. For the schools in Table 3 using the combination type of program of studies, the numbers of curriculums offered were counted and tabulated. The distribution of these schools according to the numbers of curriculums is given in Table 4, together with the total and average number of curriculums. The number of curriculums ranged in both the years from 2 (the smallest number that can be offered in this type of program of studies) to "more than 10." Although the average number of curriculums showed little tendency to increase during the six-year interval, there was some shift away from the minimum number. The shift suggests the inadequacy of this restricted range of curriculum differentiation. The table is not designed to disclose a tendency which appears when schools using the combination program are grouped by size of enrollment, namely, that the number of curriculums increases with increase in enrollment.

TABLE 4

DISTRIBUTION OF SENIOR AND FOUR-YEAR HIGH SCHOOLS WITH THE COMBINATION TYPE OF PROGRAM OF STUDIES ACCORDING TO THE NUMBERS OF CURRICULUMS OFFERED, AND THE TOTAL AND AVERAGE NUMBERS OF CURRICULUMS [1]

NUMBER	1924–25	1930–31
2	12	3
3	19	22
4	33	36
5	18	9
6	13	11
7	5	8
8	3	4
9	2	1
10	1	1
More than 10	2	1
Total	495	445
Number of schools	108	96
Average number of curriculums	4.58	4.64

Titles and classifications of curriculums. Examination of any considerable number of programs of studies discloses titles of curriculums in great variety. For the schools represented in Table 4, Table 5 reports that the total numbers of different titles were 69 in 1924–25 and 83 in 1930–31. The increase in number shows some tendency toward diversification of titles despite the decline in total numbers of curriculums offered. For purposes of tabulation the titles were reduced to eight classifications—"college preparatory" and seven others. A highly significant fact is the sharp decline during the six-year interval in the proportion of college-preparatory curriculums (from 41.2 per cent to 35.5 per cent) and the corresponding increase in the whole group of others. The classification which accounts for most of the increment is that which includes the "general" curriculum. It is not to be assumed that preparation for college is restricted to the classification of curriculums designated as "college preparatory," but it may be assumed that the other groups of curriculums are set up to serve predominantly non-college-going pupils. The trend toward a decline in the proportion of curriculums which are college-preparatory and a reciprocal increase in non-college-preparatory curriculums have been established in several other studies.

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[1] Drawn from Table 49 in A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *ibid.*, p. 121.

TABLE 5

DISTRIBUTION OF CURRICULUMS ACCORDING TO CLASSIFICATION, NUMBERS OF SEPARATE NAMES OF CURRICULUMS EMPLOYED, AND NUMBERS AND PERCENTAGES OF CURRICULUMS IN EACH CLASSIFICATION [1]

CLASSIFICATION	SEPARATE NAMES EMPLOYED		CURRICULUMS IN THE CLASSIFICATION		PERCENTAGE OF ALL CURRICULUMS	
	1924–25	1930–31	1924–25 (108) *	1930–31 (96) *	1924–25	1930–31
College preparatory	25	36	204	158	41.2	35.5
Commercial	6	15	107	106	21.7	23.8
General	5	7	57	72	11.5	16.2
Manual *or* Practical arts	13	12	39	35	7.9	7.9
Home economics	9	5	35	32	7.1	7.2
Agriculture	3	2	23	19	4.6	4.3
Normal training	2	2	19	13	3.8	2.9
Fine arts	6	4	11	10	2.2	2.2
Total	69	83	495	445	100.0	100.0

* Numbers of schools with combination programs of studies.

The make-up of curriculums. While it would be helpful to portray and discuss the make-up of a large number of curriculums of different titles, we must be content to examine three of those most frequently recurring in combination programs of studies. Two of these are specialized curriculums (the college-preparatory and the commercial), and the third is an unspecialized curriculum (the "general" curriculum). These curriculums are described in terms of the subject fields and the courses required in them in Table 6, page 32. In interpreting the table, one should bear in mind that requirements in the curriculums are often put in terms of the name of the subject field, as "English," "History," or "Foreign language," rather than in terms of names of specific courses, such as "Composition and rhetoric" or "World history." In some instances designations like "English V" or "Mathematics III" may be introduced into printed programs without accompanying designation of the specific areas intended. Nevertheless, one may infer (in part even if not completely) from the size of the percentages in the table the extent, or amount, of the prescription. In the interpretations ventured here, there will be some degree of supplementation from other evidence not reproduced in the table.

(1) As is to be expected, all three curriculums make English a requirement. A fact not shown in Table 6 is that the requirement is typically extended through four years in the college-preparatory cur-

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[1] Drawn from Table 50 in A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *ibid.*, p. 122.

TABLE 6

PERCENTAGES OF COLLEGE-PREPARATORY, COMMERCIAL, AND GENERAL CURRICULUMS IN WHICH CERTAIN SUBJECTS AND COURSES WERE REQUIRED IN 1924–25 AND 1930–31 [1]

SUBJECT FIELD AND COURSE	COLLEGE PREPARATORY		COMMERCIAL		GENERAL	
	1924–25 (172) *	1930–31 (158)	1924–25 (90)	1930–31 (106)	1924–25 (57)	1930–31 (69)
English	100.0	100.0	97.8	100.0	98.2	100.0
American literature	9.3	—	—	—	10.6	—
English literature	9.3	—	11.1	—	—	—
Composition and rhetoric	—	—	10.0	—	—	—
English	90.7	100.0	94.4	100.0	91.2	100.0
History	95.4	96.3	86.7	91.5	91.2	92.7
World history	—	—	—	9.4	—	13.0
American history	95.3	88.0	84.4	86.0	89.5	81.2
Ancient history	23.3	22.2	23.3	12.3	33.3	20.2
Modern history	27.9	15.2	24.5	—	36.9	20.2
General history	9.3	—	—	—	—	—
Medieval history	11.6	—	—	—	—	—
History	—	10.8	—	—	—	15.9
Other social studies	76.4	76.0	86.7	83.0	86.0	84.0
Civics	58.1	46.2	65.5	51.0	66.7	56.5
Community civics or citizenship	14.0	—	22.2	12.3	22.8	14.5
Problems of democracy	11.7	25.9	21.1	22.6	24.6	29.0
Economics	18.6	—	25.6	22.6	17.6	—
Sociology	—	—	—	—	15.8	—
Social science	—	—	—	12.3	—	—
Mathematics	100.0	96.8	53.3	44.3	72.0	65.2
Elementary algebra	100.0	93.6	47.8	37.8	64.9	52.2
Plane geometry	97.7	91.1	16.7	10.3	42.1	26.1
Advanced algebra	51.2	52.0	—	—	—	—
Solid geometry	16.3	24.0	—	—	—	—
Trigonometry	—	15.2	—	—	—	—
General mathematics	—	—	—	—	12.3	—
Science	91.7	80.4	60.0	54.7	75.4	57.9
General science	30.0	41.3	37.8	33.0	42.1	40.6
Biology	37.2	27.2	23.3	17.0	31.6	26.1
Physical science	—	15.2	—	—	—	—
Botany	18.6	—	10.0	—	12.3	—
Chemistry	39.5	26.0	15.6	—	36.9	—
Physics	65.1	34.8	22.2	—	43.9	—
Physiology	9.3	—	11.1	—	10.5	—
Foreign language	83.6	82.9	10.0	—	14.2	—
Latin	97.7	42.4	—	—	—	—
French	67.4	27.2	—	—	—	—
Spanish	27.9	—	—	—	—	—
Latin or other language	—	25.3	—	—	—	—
French or other language	—	31.7	—	—	—	—
Spanish or other language	—	18.4	—	—	—	—
Commerce	—	12.5	—	—	12.3	—
Shorthand	—	—	96.7	77.5	—	—
Typewriting	—	—	86.6	91.5	—	—
Commercial law	—	—	65.6	57.5	—	—
Commercial geography	—	—	52.2	28.3	—	—
Commercial arithmetic	—	—	77.8	63.1	—	—
Bookkeeping	—	—	82.2	70.8	—	—
Business English	—	—	26.6	29.4	—	—
Office practice	—	—	23.3	27.3	—	—
Penmanship	—	—	32.2	—	—	—
Penmanship and spelling	—	—	13.3	—	—	—
Elementary business training	—	—	—	27.4	—	—
Salesmanship	—	—	—	16.1	—	—

* Numbers in parentheses are the numbers of curriculums represented.

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[1] Drawn from Table 56 in A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *ibid.*, pp. 149–150.

riculum, with a partial tendency to prescribe less in the commercial and general curriculums.

(2) Most curriculums in the three groups prescribe some history, the most recurrent requirement being American history. Ancient history and modern history were declining as requirements, apparently being displaced by world history.

(3) Other (nonhistorical) social studies were also prescribed in all three curriculums in most schools, more often as civics than under other titles. The trends of percentages, however, indicate some extent of displacement of civics by the more comprehensive course, problems of democracy.

(4) The figures for mathematics show the most striking differences among the curriculums encountered up to this point. The college-preparatory curriculum is seen to rely heavily on this subject field. The other two curriculums required courses in the field much less often—the commercial curriculum even less often than the general curriculum. Also, the trend was away from the prescription of supra-arithmetical mathematics in both the commercial and the general curriculum.

(5) The subject field of foreign language is one that clearly differentiates the college-preparatory curriculum from the two other curriculums. Even in that curriculum there has been movement away from prescription of *specific* foreign languages. The only commercial and general curriculums which had prescribed foreign language at the opening of the interval had abandoned it by 1930–31.

(6) Commercial courses were prescribed, at the end of the interval represented, only in commercial curriculums. Typewriting, business English, office practice, elementary business training and salesmanship were the only subjects that appeared to be gaining ground as prescriptions, and all but the last of these may be considered something like general elements of commercial training. The partial decline of shorthand and bookkeeping probably reflects some tendency toward affording opportunities for specialization *within* the commercial curriculum, such subjects being made elective in relationship to pupils' specific occupational plans.

(7) The evidence of the table bears out one's expectation that the college-preparatory curriculum affords its differentiation in prescriptions of foreign language and mathematics, while the commercial curriculum does so in prescriptions of commercial subjects. The general curriculum, however, as its name in part implies, is unspecialized. At

the same time, because of its relatively small number of prescriptions, it is not general in the sense of prescribing more elements than other curriculums of a general education. This situation makes desirable a somewhat longer consideration of its uses than is accorded other curriculums.

The uses and implications of the general curriculum. The general curriculum is one of the most frequently offered curriculums in the combination type of program of studies. Moreover, the proportion of schools with combination programs which include the general curriculum is increasing. Table 5, previously considered, finds the general curriculum third in frequency in the classifications listed both for 1924–25 and 1930–31, and calculations of the proportion of schools with combination programs which included the general curriculum show it to have increased from slightly over half to exactly three fourths of the schools.

Not only is this general curriculum a frequent feature of the offering, but it typically enrolls a large proportion of pupils in the school. A study by Bryson and Hutson of more than a hundred high schools in Pennsylvania found that the median percentage of the total enrollment in the general curriculum was 24.00. The same study found that the proportion grew larger for boys and for girls with each succeeding grade beginning with Grade X,[1] an increase reflecting a considerable movement, during their high-school careers, of pupils from specialized curriculums to the general curriculum.

Among more common reasons given by principals for advising pupils to *elect* the general curriculum, as found by Bryson and Hutson, are that the foreign-language requirement in other curriculums presents an objection, that pupils may be of low intelligence, and that the pupil does not know whether he will continue his schooling beyond high school. Reasons given for advising pupils to *transfer to* the general curriculum from some other are lack of capacity for or interest in some of the regular subjects of the curriculums in which they have been enrolled and change of educational or vocational plans.[2]

Pupils' reasons are likewise worth considering. Among reasons more commonly indicated by pupils, as reported by Brumbaugh and Hutson, for *electing* the general curriculum were that they did not know what vocation they wanted to prepare for, they did not want to take commercial subjects, and they thought that some of the subjects required (Latin, modern language, algebra, geometry) in the other courses would be hard or of little use. Among frequent reasons indicated by pupils for *transferring to* the general curriculum were the difficulty of some of the subjects they had been taking, their lack of interest in some of these subjects, and changes in vocational plans.[1] The curriculums from which these pupils had transferred were chiefly the commercial, academic, and college-preparatory curriculums.[2] These authors also report that "many very able students, as well as poor ones, complete this [general] curriculum." [3]

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[1] William M. Bryson and Percival W. Hutson, "The General Curriculum," *School Review*, XLIII (January, 1935), 21–22.

[2] *Ibid.*, p. 24.

Their inquiries into the functioning of the general curriculum led these investigators to conclude that an "indispensable service in educational democratization is provided" in it and that it affords in high degree the flexibility which must characterize an educational program that is intended to serve all children. They further point out that it is impracticable to offer enough specialized curriculums to provide for all individual differences among pupils. They commend the general curriculum as "an instrument of fundamental importance in the performance of the *exploratory* function" of the secondary school and insist that investigations of interests compel acknowledgment that "the decisions of a fourteen-year-old boy or girl with regard to educational and vocational plans must be regarded as tentative and decidedly subject to change." [4]

Finally, concerning the operation of the type of program of studies of which the general curriculum is a feature, Brumbaugh and Hutson say:

> A candid facing of the findings of research may well call into question the whole practice of dividing the educational thoroughfare into a few sharply marked trails at the beginning of the ninth year. The rising popularity of the general curriculum signifies a breaking-down of the older practice in organizing the program of studies, for in actuality the general curriculum is a constants-with-variables program.[5]

The quotation thus brings the discussion up to the point of decision on the desirable type of program of studies for various secondary schools.

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[1] Harry E. Brumbaugh and Percival W. Hutson, "How High-School Pupils Use the General Curriculum," *School Review*, XLIII (February, 1935), 121–122.

[2] *Ibid.*, p. 123.

[3] *Ibid.*, p. 130.

[4] *Ibid.*, pp. 130–131.

[5] *Ibid.*, p. 131.

THE FUNCTIONAL ORGANIZATION OF PROGRAMS OF STUDIES

In junior-high-school years. The review (in an earlier section of the chapter) of trends in the organization of programs of studies in junior high schools found a marked movement away from the combination type in which specialized curriculums are offered. Because this trend has the support of the increasing exclusion of youth from employment, which now keeps them in school through at least the senior-high-school period and even beyond, the only desirable alternative is the constants-with-variables type of program of studies, which does not call for committal by the pupil to specialization during junior-high-school years. This preference has the support also of the lack of need and desirability of specialization for college preparation at the same level.

The requirements of the common elements of an education will occupy most of the pupil's time in these grades and the program will on this account be made up largely of constants. This statement should not be taken to signify the advocacy of a program of studies without variables, that is, a strictly single-curriculum organization of the program. A good case can be made for some variability in *all* junior-high-school grades and for some increase in variability with the pupil's progress through the junior-high-school period; the needs for recognizing individual differences in interest and for exploration demand it. Certainly some opportunity for election should be made not later than Grade VIII. Too many schools have in recent years entirely eliminated opportunities for election until Grade IX, the traditional grade for the beginning of variability, and have thus reverted to this extent to a dominant and undesirable characteristic of the eight-four plan of organization.

In senior-high-school years. Preference based on function seems to point also to the constants-with-variables program of studies for the three grades of senior high schools. There is some trend toward it and away from the combination type when one considers only external organization; but, as was shown near the close of the foregoing section, there is a much more notable trend toward it in the emergence, rapid introduction, and use of what has come to be called the general curriculum in combination programs of studies, a curriculum that affords much more flexibility than the specialized curriculums in combination programs of studies.

A further justification of the constants-with-variables program is found in the current trend toward more extended requirements of all pupils in the way of general education at the senior-high-school level. With correspondingly less extended variable elements, the need diminishes for the more rigid extensively specialized curriculums of the combination program.

However, the specialized curriculums of the combination program of studies have a significant function in guidance, and one should hasten to urge on the school which uses the constants-with-variables program of studies the listing of a number of *suggestive* curriculums of more or less specialization, to be considered by pupils in deciding on or making up their individual curriculums. These suggestive curriculums might well follow in titles the more functional curriculums of current combination programs, such as college-preparatory, secretarial, industrial-arts, music, and so on. Among them would be included also such vocational curriculums as are needed in harmony with the discussion of vocational education in the next chapter. Guidance of pupils would be aided by outlining, in schools with generous total offerings, a considerable number and variety of curriculums.

This array of suggestive curriculums should include also one of the type which has here been discussed as the "general" curriculum. It is in reality less often a *general* curriculum than a *skeleton* curriculum, since, as has already been shown, it does not usually go in its prescriptions far beyond the subjects required of all pupils, and it permits the pupil to make up the remainder of his curriculum under conditions of greater flexibility than are afforded by any other curriculum. These conditions make it more nearly possible for the pupil to approximate a general curriculum (in the sense of one which yields a general education) than does any other curriculum, but one may doubt whether the patterns of subjects taken often point to a general education.

The danger in the general curriculum as usually administered is that the pupil will come to the end of his senior-high-school career with, in addition to the subjects prescribed for all, a rather meaningless and disjunctive miscellany of courses to his credit. In the interests of adequate exploration, the senior-high-school program of studies, like that at the junior-high-school level, should encourage a considerable amount of "shopping around" among courses. At the same time, it is desirable also, if the constants for all pupils do not achieve a desirable extent of sequence and continuity, for the regulations controlling the elective, or variable, portions of the program to foster attainment of that desirable condition. A type of regulation which has been found effective in this connection is the prescription of what are often called "majors" and "minors."

This plan of requiring majors and minors is often administered in schools using the constants-with-variables program of studies; it is also sometimes administered in connection with the general curriculum in schools with combination programs. It insists merely that, while meeting requirements for graduation which are formulated in terms of a minimum number of units (typically 12 units for a three-grade senior high school), the pupil include in his program a minimum number of majors, usually of 3 units each, and a minimum number of minors, usually of 2 units each. The subjects, or fields, in which the majors and minors are to be completed, except for those set up in the constants, are left to the choice of the pupil. For example, a school may require that, to qualify for the diploma, the pupil should complete during his high-school career two majors of at least 3 units each and two minors of 2 units each. Or another school, which prescribes three years of English and two years of the social studies for all pupils, might insist that each pupil have one major and one minor in addition to these constant sequences. In both these illustrative arrangements 10 units of the total of 12 would be taken over by the major-minor requirement, leaving 2 units for free election (outside the majors and minors) to serve the needs of further exploration or additional special interests. In some schools this leeway for free election is regarded as too narrow and the requirement in majors and minors is correspondingly reduced so as to increase the proportion of courses usable in recognition of the need for exploration and special interests. In some schools, also, pupils are permitted to count toward the majors and minors certain courses which they have had in the junior-high-school period.

In administering the major-minor requirement, whether it is applied in a constants-with-variables program as a whole or only in the general curriculum among an array of suggestive curriculums, it is essential that the list of fields in which majors and minors are acceptable should be extended beyond the traditional "academic" subjects to include the newer instructional areas, like commerce, agriculture, home economics, industrial arts, music, and the like, at least wherever the offerings in these areas are large enough to make up suitable majors or minors. It will be apparent without elaboration that the suggestive curriculums other than the general curriculum will, if properly made up, usually achieve the sequence and continuity called for by the requirement of majors and minors. They should also provide some leeway for individual choice beyond the recommended prescriptions, in order to permit some exploration outside the field of specialization represented by the curriculum and some recognition of additional special interests of the pupil. The suggestive clerical curriculum, for example, might prescribe a 3-unit major of English, a 4-unit major of commercial subjects, and a 2-unit major in the social studies, thereby leaving 3 units for further exploration and recognition of additional special interests.

In the junior-senior high school. The desirable plan of organization of the program of studies in junior-senior high schools and six-year undivided high schools (with Grade VII as the beginning grade in twelve-grade systems) may be readily inferred from the programs just discussed for separate junior high schools and senior high schools. The preferred program throughout the six-year period would be of the constants-with-variables type. At the senior-high-school level—that is, in grades X–XII—the program would be accompanied by suggestive curriculums in order to facilitate guidance. Among these curriculums would be included the general curriculum, election within which should be controlled by some such arrangement as the major-minor system, as described.

In four-year high schools. Desirable organization of the program of studies is more difficult to attain in the four-year high school than in reorganized schools. The difficulty resides in the negligible extent of exploratory experience possible for pupils in the upper grades of eight-year elementary schools. To open up to pupils from such schools the combination type of program of studies with specialized curriculums beginning in Grade IX, as is a very frequent practice, is almost the height of ineptitude. It invites the wholesale shift of pupils from specialized curriculums to the general curriculum to which reference has already been made; and to have such a shift in a school is prima-facie evidence of the unsuitability of program arrangements. It is surprising that schools have been so slow to abandon it for a more functional pattern of organization. Almost certainly the combination program would have moved more rapidly toward disappearance if the general curriculum, which has already been characterized as virtually a skeleton curriculum, had not been invented.

The organization of the program for four-year high schools that seems best to recommend itself is the constants-with-variables type with, for reasons already given, suggestive curriculums made available beginning with Grade X (the second year of the four-year period). As recommended for the senior high school, a general curriculum should be included among the suggestive curriculums, with similar controls, to achieve sequence and continuity, which do not eliminate entirely opportunities for further exploration and indulgence of additional special interests. The program of Grade IX in four-year high schools should be made up largely of the common elements of an education but should, under the constants-with-variables arrangement, allow some leeway for election, to serve the needs of exploration and special interests of pupils. The program of the first year in four-year high schools should be and is being increasingly set up as an orientation year during which the pupil, in addition to making substantial additions to his general education, is having exploratory experiences and is being studied by the high-school staff with a view to serving better his general and special needs and interests during the three-year senior-high-school period.

A special word may be necessary concerning four-year senior high schools, that is, senior high schools in systems operating on the six-two-four basis, with two-grade junior high schools. If these two-grade junior high schools operate constants-with-variables programs with some degree of flexibility in both grades, or at least in Grade VIII, pupils should enter Grade IX of the senior high schools with exploratory experiences somewhat in excess of those available in the last two grades of the conventional eight-year elementary school. Thus the responsibility for orientation in Grade IX will be lighter than that in four-year high schools in eight-four systems. Nevertheless, the advantage is certainly not great enough to warrant operation of the combination type of program with specialized curriculums beginning in Grade IX, nor even the constants-with-variables program with suggestive curriculums which are indicated to begin in Grade IX. It would still appear desirable to regard Grade IX as a year of orientation and to operate the constants-with-variables program with suggestive curriculums in grades X–XII, as has been recommended for the three-grade senior high school.

Effect on the program of expanding the core at the senior-high-school level. Social and economic trends and current discussion portend increase in the constant, or core, elements of the curriculum at the senior-high-school level. This change will mean a corresponding decrease in the variable portions of the individual pupil's curriculum. Development in this direction will make the constants-with-variables type of program increasingly appropriate. One can only speculate as to whether it will be carried so far as to preclude the need and desirability of suggestive curriculums. However, it is very likely to proceed to the point where it will affect the extent of sequence and continuity afforded within the constant portions of the program; and if it does so, it cannot fail to influence the formulation of regulations like those pertaining to majors and minors.

Guidance in the constants-with-variables program of studies. An objection sometimes raised to the constants-with-variables program of studies is that it entails a heavier burden of guidance than does the combination program. The criticism is well-founded, especially as it applies to the constants-with-variables program unaccompanied by suggestive curriculums as here recommended. The objection will tend to disappear with increase in the core elements of the curriculum and with schools following the practice of outlining suggestive curriculums. From an important standpoint, the objection is interpretable as a commendation. Secondary schools can no longer be regarded as efficient without adequate provisions for guidance, and a type of program of studies which hastens the development of arrangements for guidance should be commended rather than condemned. This assertion is especially true when, as is the case in the constants-with-variables program, the issues that are raised by the type of program are of such a nature that they will, from the point of view of the best education of pupils, be recurrently faced by the pupils and their advisers throughout the pupils' high-school careers.

The functional program and provisions for individual differences. It is inferrible from what has already been said in this chapter that the constants-with-variables program of studies can be used more effectively than the combination type in providing for individual differences, in so far as these provisions are to be made through the organization of the program of studies. It does so because it affords greater flexibility in the variable portions of the program. Experience with the combination program ultimately brings the conviction that the number of specialized curriculums cannot be multiplied sufficiently to provide for all specialized needs and interests of any large number of pupils. At this point the general curriculum emerges. The introduction of the general curriculum virtually transmutes the combination program, as has previously been pointed out, into a constants-with-variables program, but one which operates rather clumsily.

It must be remembered that the organization of the program of studies is only one of the means, even though an important one, of providing for individual differences. The arrangements here considered have to do chiefly with administering the variable elements of the offering in such a way as best to serve individual needs and interests. As concerns the offering, there is still the question of how best to administer the constant elements, or core, so as to provide for individual differences. Among prominent and promising means for differentiation within the core, as previously indicated, are grouping by ability and procedures characterized by the unit assignment. These and other provisions for individual differences are considered in Chapter VII, on the program for individual differences.

THE PROGRAM OF STUDIES AND THE CORE CURRICULUM

Patterns of organization of the core curriculum. Much is being made in late years of the "core curriculum," and considerable progress has been made in working it out in secondary schools. In line with emphasis which is concerned more with administration than with curriculum and instruction, the interest here is not so much in discussing the theory or theories of integration through the core curriculum as in noting how the introduction of the core curriculum is likely to affect the organization of the program of studies. To this end, illustrative organizations of the core curriculum are presented.

A school in which core-curriculum arrangements have been put in operation is the Lincoln High School, a four-year high school in Los Angeles. The arrangements are made apparent in the following quotations from a brief article by the principal of the school, Dr. Ethel Percy Andrus:

> Of the work covered in the core curriculum, the major course in length of time is the basic course in social experience which we call Social Living. This course endeavors to develop certain fundamental social abilities among which are the following: understanding appreciatively one's self and one's social environment; being able to communicate simply, directly, and effectively; acquiring good reading habits; and developing wholesome reading tastes.
>
> The Social Living group meets with the teacher eight hours a week and with itself an additional two hours. The two hours outside the classroom are scheduled as conference time for school and group assemblies. The programs presented in these conferences are joint enterprises of teacher and pupil. The school assemblies present a series of dramatized current events, and the group conferences form a symposium on consumer education.
>
> Social Living classes, as we have pointed out, meet two hours daily. This leaves another two hours for core courses. One hour daily of this time for the

> first three years is assigned to the study of man's natural environment. This is a generalized science course covering six semesters and aimed at the development of a scientific way of thinking. It affords firsthand experiences in establishing certain fundamental concepts, such as an adaptation to environment. For those students who wish to be reported on the official transcript as having both physics and chemistry, these subjects, somewhat along the old traditional lines, are still offered, with perhaps a greater emphasis upon projects and individual investigation and report than was once offered.
>
> The final hour of the core curriculum is devoted to a series of health and recreational activities with three chief goals in mind: to correct physical disabilities where possible; to lead pupils to acquire health habits; and to lead them to gain skill in certain recreational pursuits. Among the recreations emphasized we may list social dancing, tap dancing, creative dancing, archery, tennis, badminton, deck tennis, Ping-pong, chess, and checkers.[1]

Dr. Andrus reports in the article that of the total of 30 hours a week (of which the portions of the core curriculum described consume 4 hours daily, or a total of 20 hours), the remaining 10 hours (2 hours daily) are devoted to "that special type of interest which differentiates each pupil from his neighbor." [2]

Another core-curriculum program, partly proposed and partly in effect (in the Eagle Rock High School of Los Angeles), has been outlined in a chapter on "New Schools for a New Day" by W. B. Featherstone, at the time director of secondary curriculum in the Los Angeles school system.

PROGRAM FOR B 7, A 7, AND B 8 GRADES

	Hours Weekly
1. Social Studies ("The American Epic"), including elements from English, history, geography, art, music, etc.	10
2. Health and Recreation Activities	5
3. Mathematics, largely related to household and industrial arts	5
4. Household Arts; Industrial Arts (correlated with Social Studies where pertinent)	2–3
5. Science, largely related to household and industrial arts	2–3
6. Free activity (workshop, studio, or library, or remedial study where needed)	5

At the close of the B 8 semester, pupils are grouped roughly (for guidance purposes) as follows:

Group A Pupils with demonstrated capacity to do hard intellectual work, whose major interests are fairly well defined along academic or scientific lines. These are regrouped according to major subjects.

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[1] Ethel Percy Andrus, "Core-Curriculum at Lincoln High School," *California Journal of Secondary Education*, XII (January, 1937), 18.

[2] *Loc. cit.*

Group N	Pupils whose major interests are along nonacademic lines. These are regrouped according to major subjects; as, commercial, fine arts, industrial arts, etc.
Group U	Pupils of less marked ability whose major interests are not well defined or for whom continuous general education seems best.

Program for A 8 Semester

	Hours Weekly
1. Social Studies ("The American Epic" continued)	10
2. Health and Recreation Activities	5
3. Mathematics, largely related to household and industrial arts	5
4. Science	5
5. Choice of a language, dramatics, industrial or household arts, music, art, typewriting, everyday business, etc.	2–3
6. Free activity or remedial study	2–3

Program for B 9 and A 9 Semesters

	Hours Weekly
1. Social Studies ("World Cultures"), being typical cross-section studies of the culture or civilization of important modern peoples. These activities involve materials from history, geography, music, and art and the use of written and oral expression	10
2. Health and Recreation Activities	5
3. Science (a somewhat formal, unified study based upon a general plan called "This Living World")	5
4. Choice of two of the following, to total 6–8 hours a week: A foreign language (5 hours weekly); mathematics (3–5 hours weekly); everyday business (3–5 hours weekly); household or industrial arts (3–5 hours weekly); art, music, dramatics, journalism, ceramics, crafts, etc.	6–8
5. Free activity or remedial study	2–4

Program for B 10 and A 10 Semesters

	Hours Weekly
1. Social Studies (continued from B 9–A 9)	10
2. Health and Recreation Activities	5
3. Science (emphasis chiefly biological)	5
4. Choice of two of the following, one of which must be in the line of "major" interest, the other chiefly for enrichment of general education: Mathematics; various commercial studies; various foreign languages; industrial, household, and fine arts	10

Program for B 11 and A 11 Semesters

	Hours Weekly
1. Social Studies ("American Life and Institutions"), problems and projects for the interpretation of the American scene	10
2. Health and Recreation Activities	5
3. Major-interest subject or subjects	10

	Hours Weekly
4. General-interest electives from following list: Languages (if not in major interest); journalism; public speaking; various offerings in literature, history, etc.; family relations; general leisure-time activities	5

Program for B12 and A12 Semesters	Hours Weekly
1. Health and Recreation Activities	5
2. Additional social studies, literature, or language activities	5
3. Major-interest subjects	10
4. A laboratory science (unless included in major interest)	5
5. General-interest electives[1]	5–10

The extent of correlation or integration of subjects (or other areas of instruction) varies greatly from school to school, although it has not been carried much beyond two subjects in most schools that have been committed to integration. This wide variation is exemplified in a publication entitled *A Correlated Curriculum*, prepared by Ruth Mary Weeks for the National Council of Teachers of English.[2] In a succession of chapters this publication describes programs of correlation, or integration, involving English which range from no disruption of conventional subject boundaries to complete disregard of them. This range is reflected in the titles of the chapters: (1) "Correlation of English with Other Fields through Incidental References and Isolated Projects," (2) "An English Course Based on Correlation with Other Subjects but Not Implying Modification of Courses in Any Other Field," (3) "The Fusion of English with One Other Subject" (for example, "joint courses in English and civics"), (4) "The Fusion of Groups of Subjects," (5) "A Curriculum Based on the Integration of All Educational Subjects or Transcending Subject-Matter Divisions," and (6) "The Administrative Organization of the School as a Whole on a Correlative Basis."

Few if any secondary schools have undertaken integration of the type characterized in the last two bases enumerated, although a number have been experimenting with the pattern that would go as far as the fourth, "The Fusion of Groups of Subjects." On this account it is desirable to refer here to an example of such an effort. The school in question is the University High School of the University of Minnesota; the grades represented are the three junior-high-school grades; and the description applies to the situation as it was in 1935–36. The description drawn upon is by Oliver R. Floyd, at the time principal of the University High School.

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[1] Samuel Everett (Editor), *A Challenge to Secondary Education.* New York: D. Appleton-Century Company, 1935. Chap. III, pp. 70–72.

[2] Ruth Mary Weeks, *A Correlated Curriculum.* Report of the National Council of Teachers of English. New York: D. Appleton-Century Company, 1936.

Without attempting to repeat in full Floyd's exposition of the organization, it may be said that the general objective of this curriculum was the interpretation of social institutions to the pupil. The content was organized around "seven fundamental needs of man," namely, food, shelter, communication, mobility, co-operation, passing on our heritage, and mental and spiritual life. For each of these needs, which became a major unit in the curriculum, specific objectives included appropriate knowledges, attitudes, skills, and interrelationships. The logical organization of the interpretation for an institution was developed co-operatively by representatives of the subject-matter departments concerned. The social-studies department contributed the historical approach, the quantitative approach was represented by the mathematics department, the scientific approach was under the direction of the natural-science department, and the English department made its peculiar contribution. The point of view throughout was the acceptance of the subject as a means rather than as an end.[1] The integrated curriculum thus described occupied the morning half of the day for the pupils enrolled—that is, from the opening of school until the lunch hour—with teachers from each of the departments represented sharing in the instruction. The remainder of the day was given to other elements of the pupils' programs, following something like the usual organization of junior-high-school subjects.

The bearing of these patterns on the type of program of studies. An inference from the illustrations cited is that secondary schools having the core curriculum are predominantly following the constants-with-variables type of program of studies. The chief differences between these examples and the constants-with-variables programs represented in the earlier discussion are (1) that the constant portions are merged into larger areas of the curriculum in which conventional subject boundaries tend to disappear and (2) that they make up a larger portion of the pupils' total program than do the required subjects in the usual constants-with-variables arrangement. In this second respect the use of the core curriculum tends to accentuate a trend now seen in the make-up of programs of studies, which is to augment the common elements of the education at the secondary level. This trend is in accord with social and economic trends, which have made the common life so complex that more time is required of all to achieve an understanding of it and to aid the individual in making optimum adjustment to this complex world.

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[1] The description up to this point is based on Oliver R. Floyd's "Selecting and Organizing the Content of an Integrated Curriculum," *School Review*, XLIV (October, 1936), 577–585. The remaining sentences are based on a conversation with Dr. Floyd.

Administering instruction in broader areas, rather than in individual subjects, and consuming more of the pupil's day through the core curriculum have their bearing not only on the program of studies but also on the schedules of both pupils and teachers. Procedures in scheduling in secondary schools are dealt with in Chapter VIII.

THE PROGRAM OF STUDIES IN SMALLER SCHOOLS

The type of program of studies in smaller schools. It is well known that the program of studies in secondary schools with the smallest enrollments and teaching staffs is of the single-curriculum type in which all pupils have the same subjects. It is also known that the explanation of the prevalence of the single-curriculum program in small schools is the impossibility in many such schools, with the small teaching staffs available, of offering more than the minimum amount of work to meet requirements of state approval—an amount usually set at 16 units in a four-year high school.

With increase in the size of enrollments and teaching staffs in small schools, work in excess of the minimum of 16 units is offered and some variability is introduced into the program. It then usually takes on the form of the constants-with-variables type, with most of the courses prescribed for all accompanied by alternatives, or options, in portions of the individual pupil's curriculum. With further expansion, the setting up of specialized curriculums in a combination program usually begins. At this stage the school is usually no longer classifiable as *small*, and considerations urged in a previous section in support of a constants-with-variables program with suggestive curriculums are applicable.

Determination of subjects to be offered in small schools. It should be obvious that the subjects, or courses, which make up the single-curriculum program in small schools should be selected on the basis of their significance for the majority of pupils. It is common knowledge that this principle is often violated by determining the offering by the college-preparatory needs of a small minority of pupils who plan to continue their education beyond the high school. Since only one group can be served by a single-curriculum program and the need of the largest group is for general education, subjects intended primarily for college preparation should be set aside by subjects chiefly significant for general education.

By the same token the first additions to the offering beyond the minimum for state approval should be introduced to serve the special needs of numerically prominent groups of pupils. In most small high schools these special needs would be those of pupils of the two sexes. Needs for work in homemaking for girls and for agriculture and related shop activities for boys would loom large in many small *rural* high schools. Special needs and interests of other prominent groups are readily identifiable. The special needs of the college-going group in most small schools, judged by the proportion of these pupils in the total enrollment, would seldom be among the first to be recognized. It will be a great boon to small high schools, to the pupils enrolled in them, and to the communities of which they are a part when the knowledge that the particular pattern of subjects is of little or no special significance for success in college penetrates to the authorities who determine requirements for entrance and when there is no longer insistence on particular patterns for college preparation.

After the appropriate offering and organization of the program of studies for a small school has been decided upon, there is still the difficult problem of working it out in the schedule of the school. Solution of the problem calls for attention to a number of factors that may require modification of the offering. Among these factors are the specialized preparation and abilities of the members of the staff, the material facilities available, the extent of irregularity of pupils' programs owing to previous failure, and so on. These problems are considered in Chapter VIII, which deals with the schedule.

THE PRINTED PROGRAM OF STUDIES

Function and features of the printed program of studies. The formulation or reformulation of the program of studies for a secondary school usually eventuates in a printed or mimeographed publication designated more often than otherwise as the Course of Study. The publication may in some schools cover only a single page, but in most schools it is longer, extending in some instances to large pamphlet form.

The chief function of the printed program of studies is guidance; that is, it aims to aid the pupil (and his parents), through information about the program, in making the best use of the offerings of the school. Examination of any considerable number of these documents finds in them a variety of features. In simplest form such a document contains only the program of studies itself, by which is meant, for instance, the organization of the offering by grades and into curriculums in a combination type of program. Usually more features than the program of studies proper are included, such as a statement of the purpose of each curriculum; lists of subjects by grades; lists of subjects by groups; a statement concerning the significance of each group; rules applying to the program of studies; requirements for graduation; entrance requirements to different colleges and universities; bases of classification of pupils by grades; statements concerning standards and marks; and statements to parents.

Features for the recommended program of studies. For the junior-high-school level the constants-with-variables type of program of studies has been recommended. The preparation of the printed document in explanation of this program presents a problem of no particular difficulty. For the senior-high-school period (whether in three-grade senior, six-year junior-senior, or four-year high schools of all but the smallest enrollments), the type of program recommended—the constants-with-variables type with suggestive curriculums—needs special comment touching the printed document outlining it. Among the features of the document would be the list of subjects, or courses, grade by grade, with clear designation of which are constant for all pupils and which are elective. This array should be followed by the suggestive curriculums, each curriculum being presented as a list of subjects for each grade through which it extends. Each curriculum should be accompanied by a simple statement of its purpose. If, as recommended, a general (or skeleton) curriculum is included, any special regulations under which it is operated should also be given. Should a requirement of majors and minors be a feature of the program, it should be clearly stated at some appropriate point, and its application should be illustrated. There may desirably be incorporated in the printed program the features which were enumerated in the foregoing paragraph.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Consider how recent social and economic trends are likely to affect the organization of the secondary-school program of studies (1) at the junior-high-school level and (2) at the senior-high-school level.
2. Examine a number of investigations made to determine the factors of success in college, and try to generalize their findings with special reference to the significance for success of the pattern of subjects the pupil has taken in high school.

3. Have the requirements for admission to colleges and universities in your region been changed in recent years? Are such changes as are being made reducing or increasing interference with the secondary-school curriculum?
4. Consider why there has been a trend away from variability of the program of studies in grades VII and VIII. Do your explanations justify the trend?
5. What are the advantages and the disadvantages of variables for Grade VII in programs of studies in junior high schools? What are the possibilities of variation within the single curriculum for this grade?
6. Inquire about recent changes in programs of studies in several schools of your acquaintance with a view to deriving justifiable inferences concerning trends.
7. By means of a follow-up study of graduates, evaluate the specialized curriculums of one or more high schools which have been operating combination programs of studies over a period of years.
8. Explain why the pure multiple-curriculum program of studies, made up of specialized curriculums which are without elections once the curriculum has been chosen, has practically disappeared from senior and four-year high schools.
9. Discuss how the movement toward integration and the core curriculum is likely to influence the type of program of studies in use.
10. Investigate the organization of the program of studies in a number of senior and four-year high schools which are committed in whole or in part to the core curriculum.
11. Make a study of the use by pupils and advisers of the general curriculum in some school or schools of your acquaintance.
12. Recommend the subjects, or courses, in addition to those constant in all curriculums which would be suitable for the following suggestive curriculums in a combination program for a three-grade senior high school: industrial arts, home economics, agriculture, music.
13. Analyze some high school and its community with the aim of ascertaining important groups of pupils whose special needs and interests might be recognized in suggestive curriculums of the program of studies.
14. Make a collection of a number of printed or mimeographed publications of schools describing their programs of studies and analyze them as to the (1) types of programs of studies in operation and (2) the features included in them.

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Chapter III

Administering the Vocational Program

DEFINITION AND STANDPOINT

Working definition of "vocational education." To avoid confusion in discussing the administration of vocational education, it is desirable to have a simple working understanding of what is meant by *vocational education* for schools at the secondary level. It will suffice to regard the term *vocational education* as referring to all those activities by means of which one learns to carry on a useful occupation. It is apparent that all education serves this end, but it is customary to distinguish between instruction which is specifically related to the vocational objective of the individual and that which is general, or nonoccupational, in its purpose.

Education for the bona fide professions, preparation for which extends through four or more years beyond the high school, does not fall within the province of this treatise, except in so far as it involves special preparation for higher institutions, and this preparation has been considered in the foregoing chapter. The discussion here must be further restricted by omission from consideration of education for vocational rehabilitation. For assistance in keeping issues clear, attention will be focused on the vocational education necessary for assumption of responsibilities on the trainee's first full-time employment.

Relation to administration. As with consideration of the program of studies in Chapter II, discussion here must border to some extent on problems of the curriculum, which a book in administration cannot make its major concern. However, the curriculum in vocational education has its administrative and organizational aspects, as has also the more comprehensive subject of the program of studies.

In this treatment of vocational education it is desirable to go at least as far as (1) a consideration of certain problems pressing for solution and (2) suggestions toward organizing the vocational offering in its relationships to the portion of the offering addressed to general education.

CERTAIN PROBLEMS OF VOCATIONAL EDUCATION

1. The problem of the need for vocational training. Usually the first question to arise in any inquiry into this area of vocational education concerns the *need* for it. This problem of need may be considered in its national, its state or regional, and its local aspects. To throw light on the national need for vocational preparation it will serve best to draw on interpretations of occupational trends as disclosed in the Federal Census returns. One of the best of these interpretations is that by Bingham.[2] Following are excerpts from his digest of trends. It is helpful to accompany the reading of the excerpts by examination of Figure 1, which also was drawn from the article.

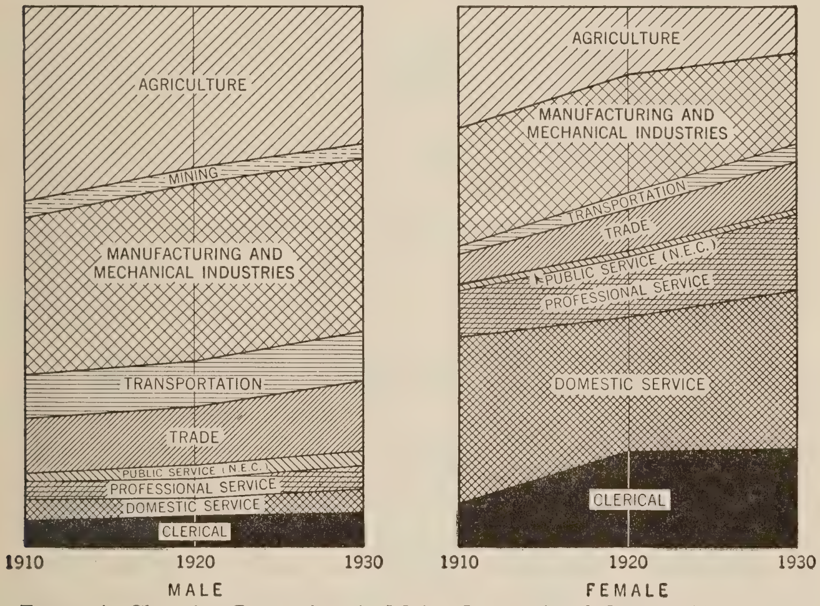

FIGURE 1. Changing Proportions in Major Occupational Groups, 1910 to 1930, in the United States [1]

> Thanks to technology and to power, a lessening proportion of the world's work is being done by the firm muscles of unskilled laborers. And this trend will continue. There is another equally important consequence of industrial revolution. The number of opportunities has been growing in numerous occupations, such as managing, selling, nursing, teaching, social work, in which effectiveness in personal relations is indispensable. . . .

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[1] After Walter V. Bingham, "Abilities and Opportunities: Some Meanings of Trends in Occupational Distribution," *Occupations*, XII (February, 1934), 8, Fig. 1.

[2] Walter V. Bingham, *op. cit.*, pp. 6–17.

The drift toward personal service occupations—many of them quite new—will undoubtedly continue. . . .

If my inferences are sound, we shall see a continuing increase in the number of opportunities for work with people.[1] . . .

Six main functions are:

1. *Primary production* . . .
2. *Processing* . . .
3. *Transporting* . . .
4. *Trading* . . .
5. *Administering* . . .
6. *Serving*, in functions other than the above, consumers' personal needs, as for health, education, religion, recreation, and other forms of professional and personal service. . . .

The proportionate increases [between 1910 and 1930] are approximately as follows:

Primary Production, Processing, and Transportation	6 per cent
Trade and Administration	80 per cent
Professional and Personal Service	50 per cent
Population as a Whole	33 per cent [2]

We have divided each of these six groups into subgroups according to the level of skill or special training required in the different occupations. It appears that the number of artisans in skilled trades increased 28 per cent in twenty years—not quite so rapidly as the population. The number of machine operatives and other semiskilled workers increased 50 per cent. But there has been an increase of only 21 per cent in the number of unskilled laborers. . . .

On the farms . . . the relative decrease in the number of unskilled workers was most marked. There were roughly the same number of farm owners, managers, and tenants in 1930 as in 1910; but thanks to intensive specialization, to advances in scientific agriculture, and to the tractor, the hayloader, the milking machine, and other labor-saving aids, these farmers were raising much larger crops and running their establishments with the help of nearly two million fewer laborers. In the factory work of processing the products of the farms and forests and mines, the number of unskilled laborers increased 27 per cent; of semiskilled operatives, 32 per cent; and of skilled artisans, 30 per cent.[3]

Most striking of all are the changes in the professional and personal service functions. Here the number in the professions proper increased 48 per cent, and in the semiprofessional group—trained nurses, social workers, laboratory assistants, librarians, actors, etc.—517 per cent; while on the lower occupational levels the workers in personal-service occupations more than doubled in number.[4]

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[1] *Ibid.*, p. 9.

[2] *Ibid.*, p. 12.

[3] *Ibid.*, pp. 13–14.

[4] *Ibid.*, p. 14.

The proportion following occupations which require only minimal abilities has been definitely changing for the better. Between 1920 and 1930 the number of men in these lower-level occupations increased only 11.5 per cent, while the population increased 16 per cent and the number of men in higher-level occupations increased 17.3 per cent.[1]

From this interpretation by Bingham of occupational trends as disclosed by the Federal Census and from interpretations by others of evidence from the same source, the following generalizations having an important bearing on the need for vocational training seem warranted. In the nature of the problem, we should be more concerned with long-time trends than with short-time tendencies, which would be more largely influenced by cycles of economic prosperity or depression; hence the generalizations are based on evidence for extended periods.

(*a*) The evidence points to a continuous, even if not a rapidly increasing demand for *skilled workers in the trades and industry*. The need for programs of training for skilled workers is no longer offset, as formerly, by immigration of such workers from apprenticeship systems of European countries, and we have had in this country no compensating development of apprenticeship that might offset the need.

(*b*) The increasing proportion of workers in *commercial pursuits* is one of the most unequivocal inferences in such interpretations of Census data.

(*c*) Trends in evidence from the Census indicate a rapidly declining proportion of unskilled workers on the farms, from which, with related trends, may be inferred an increasing need for *trained farm workers*. The related trends are the increasing size of farms, the increasingly competitive nature of farming, and the greater range of occupational competence required of farm workers.

(*d*) With 24,500,000 women engaged in *homemaking* in 1930 and the extension of the understandings and abilities involved in engaging in this occupation at a successful level, one cannot question the need of special preparation for it. Even should certain trends like the declining birth rate and the increasing divorce rate discerned by sociologists continue, it would be long indeed before this present pervasive need would be set aside.

In passing we may mention a fact which operates to complicate the problem of vocational training for women: the large proportion of women who must be prepared for two occupations—homemaking (in which the great majority of women at some time engage) and some

[1] *Ibid.*, p. 15.

other occupation (in which millions of them are employed either previously to entrance on homemaking or concurrently with their employment in homemaking).

Thus there is need for training in vocations at the level below the true professions (involving four or more years of preparation beyond the high school) in all the four major areas of trade and industry, commerce, agriculture, and homemaking. Schools at the secondary level have from the beginning provided special preparation, in the way of meeting the requirements for admission to college and university, for youth planning to enter the professions. The public school is assumed to be a democratic, classless institution, aiming to serve the whole population. As a democratic institution it should be expected to assist in preparing young people not only for the professions, but also for other types of occupations. Persons conversant with the extent of provisions for vocational education in secondary schools will know that these provisions are far indeed from meeting the need.

Perhaps the warning is gratuitous that evidence from the Federal Census cannot do more than suggest the large areas in which vocational training is appropriate. After all, the enumerators are far from expert in the identification or classification of occupations. Before decision can be made with anything like assurance on the specific occupations or groups of occupations for which preparation should be provided, there should be at hand evidence from occupational inquiries competently conducted and information concerning occupational shifts in detail for the nation as a whole, for regions or states, and for the individual communities in which the programs of training are being projected. It is to be greatly deplored that the Federal authority in vocational education, instead of devoting its research energies to job analysis of occupations, has not given more attention to this even more important problem. It has of late begun to do so.

2. The problem of distributing youth to the opportunities for vocational education. Closely associated with the problem of the need for vocational training is the problem of distributing youth to the opportunities for vocational training that are provided. Here, also, until recently, the Federal authority has been remiss, in that it has promoted the establishment of vocational curriculums without comparable attention to the problem of guiding youth in selecting from among them.

For help on this problem, again, we are in need of types of information implied in discussion of the first problem—a nation-wide occupational information service indicating the occupations that are emerging, the occupations that are disappearing, and the major changes within individual occupations and groups of occupations. The report of the Advisory Committee on Education refers aptly in this connection to the need of an "occupational outlook service" analogous to the crop outlook service of the Federal Department of Agriculture.[1] A beginning toward supplying the information has been made by the United States Employment Service. Until this agency provides adequate information, school authorities projecting programs of vocational training should supplement the evidence from the Federal Census by intensive local studies and by a continuing census like that being made in Rhode Island. As described by Gooch,[2] this census is being made through co-operation of state authority and local school authority. It secures information each year about employments and the work engaged in, involving a follow-up of the group from 16 to 24 years of age, and discloses shifts in occupations.

Effort to supply information concerning occupational trends nationally, regionally, and locally as here recommended, both as a basis of projecting programs of vocational training and for guidance, may be regarded as a phase of a planned economy. It must be understood, however, that our democratic traditions cannot tolerate compulsion of youth to enter training for specific occupations. With us *guidance* can go no further than is implied by the monitory significance of the term. The utmost of coercion must, after all, be the coercion of *facts*—facts concerning the occupational opportunities available, the opportunities for specialized training, and the abilities, interests, and traits of the advisee, as far as these are known.

Consideration of the problem of distribution cannot omit admonition against the use of vocational curriculums as a "dumping ground" for the least competent pupils. Intellectual incompetents cannot be expected to succeed in highly skilled and complex occupations. Even during the period when apprenticeship was much more in vogue, less competent youth could not become journeymen but remained in unskilled employments and common labor. Youth of low native ability must continue to render occupational service in unskilled employments. The education suited to least competent pupils is a general education with generous recognition of its social, recreational, and health phases. Reference here is obviously not to a college-preparatory education, which is characterized in Chapter II as *specialized* (not general) education. General education for less competent youth would differ from that for average youth by being simpler and more objective in its approach—something of the type of program rather characteristic of what are known as "opportunity schools."

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[1] John Dale Russell and Associates, *Vocational Education*, p. 186. Staff Study No. 8. Prepared for the Advisory Committee on Education. Washington: United States Government Printing Office, 1938.

[2] Wilbur I. Gooch, "Rhode Island's Census of Occupations," *Occupations*, XV (November, 1936), 111–122.

In partial support of the belief that vocational curriculums cannot be used as a place to dispose of pupils of low intellectual ability is the evidence that reports the relative intelligence (as measured by the intelligence quotients reported in Table 7) of boys and girls in different specialized curriculums in certain schools represented in investigations of the National Survey of Secondary Education. The differences between intelligence quotients for these different curriculums would in all probability, if the test were put to them, be found to be statistically significant, and apparently there are forces working toward some degree of differentiation from curriculum to curriculum of ability as measured by the intelligence quotient. In interpreting the evidence, however, one must bear in mind that the figures in the tables are medians and that for each curriculum half the pupils have intelligence quotients *above* these medians, as well as below them. The differences, too, may be accentuated by the fact that some of the curriculums in

TABLE 7

MEDIAN INTELLIGENCE QUOTIENTS OF BOYS AND GIRLS ENROLLED IN CERTAIN SPECIALIZED CURRICULUMS [1]

TYPE OF SCHOOL AND CURRICULUM	BOYS	GIRLS
Comprehensive schools:		
Academic	105.9	108.2
Commercial	100.0	98.9
Industrial arts	97.5	—
Household arts	—	95.7
General schools:		
Academic	106.2	109.7
Commercial	103.7	103.5
Industrial arts	94.6	—
Household arts	—	93.0
Specialized schools:		
Commercial	101.8	98.9
Trade	92.4	89.1

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[1] Drawn from tables 38 and 39 in Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *The Horizontal Organization of Secondary Education*, p. 138. National Survey of Secondary Education, Monograph No. 2. United States Office of Education, Bulletin No. 17, 1932.

industrial arts and household arts are not strictly vocational curriculums but regarded by advisers more or less in the way of general curriculums for pupils of lower-than-average ability.

Another type of consideration, of some validity, is brought forward to account for these differences in a way that tends to minimize their significance. Typical differences in socio-economic status of pupils (as indicated by the occupations of fathers) in the different curriculums are rather notable. It is sometimes urged that, if the measures of socio-economic status and of intelligence could be made on directly comparable scales, the differences for pupils in the various curriculums would be found to be greater on the former than on the latter. It is also urged that the differences in intelligence are determined in part by environmental differences reflected in socio-economic status, and that the differences in native ability are not actually so large as the differences in the measures of intelligence would seem to indicate. And finally, perhaps, the differences in intelligence quotients are in some part compensated for, in vocational curriculums, by abilities less academic in character than are indicated by measures derived from the typical intelligence test.

The final criterion by which decision is to be made concerning the curriculum in which a pupil enrolls, whether it is vocational or non-vocational, is its suitability for him in the light of his intelligence in all its major aspects, his socio-economic status, his personal qualities, and his interests. It may be unnecessary to reaffirm that the decision should not be made for him but should be his own; and it should not be made without all possible efforts to inform him concerning the intellectual, physical, social, and economic requirements of the occupation which the curriculum represents.

3. The problem of the school level of vocational education. Another recurrent problem of vocational education insisting on consideration is the school level at which it is to be given. In approaching this problem it will be assumed that, in order to make the understandings and skills available for immediate application, training for a vocation must be given as near the end of the period of formal schooling as possible. To inject a period of general training, including no emphasis on occupational aspects, between specialized vocational training and entrance on employment would make for a lessening of understandings and skills required in employment. The duration of training must, of course, depend on the extent of specialized preparation required by the occupation.

Two chief influences have been at work to raise the age level at which vocational education is appropriate. So much has been said about the first of these, and it is so generally recognized, that little more need be done here than to mention it and illustrate its effect. It is the century-long trend of *progressive exclusion of youth from opportunities for employment*, so that they now enter employment at much older ages than formerly. The trend is reflected in child-labor laws, which have moved to higher and higher age levels—levels which would not have been so readily attained if large proportions of employers had not found it easy to dispense with the labor power represented by the younger employees.

As an illustration of the stage to which exclusion has reached, brief quotation is made here from a report of the Employment Stabilization Research Institute at the University of Minnesota.[1] In a sample of industries in that state employing 3903 workers, the following extent of employment of young persons was found:

> The proportion of workers in their teens was relatively small: only 11 males, or less than .4 per cent, and 5 females, or about .5 per cent, were under 18 years of age.
>
> Between the ages of 18 and 20 there were 89 males, or 3 per cent of the total, and 72 females, or 7.4 per cent.[2]

This illustration finds few youth employed below the age level for high-school graduation and not many below termination of the junior-college period. To the comment that the study was made during the period of a depression, it may be answered that, in view of the long-time trend forced by technological developments, the situation reported is not far in advance of what must shortly be typical. To the criticism that the illustration is drawn from a region in which exclusion of youth has progressed further than in many others, the response must be that the trends are rather general over the country and that differences between regions cannot persist indefinitely.

The second main influence toward raising the level at which vocational education is appropriate is the *increasing difficulty and requirements of occupations*. This trend underlying the influence is not so well established by evidence at hand as is the trend of advancing age in employment, but it is often mentioned in authoritative circles. Prosser, in a report based on the findings of the staff research committee of the Division of

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[1] Charles A. Koepke, *A Job Analysis of Manufacturing Plants in Minnesota*. Employment Stabilization Research Institute, Vol. II, No. 8. Minneapolis: University of Minnesota Press, 1934.

[2] *Ibid.*, p. 9.

Vocational Education (of the Office of Education), asserted that "in all occupations other than the unskilled or semiskilled, the technical knowledge requirement is increasing as compared with purely manipulative skill,"[1] and the report refers also to the "increasing diversity of tools and equipment" and the "increasing demand for headwork rather than handwork."[2] The changes in the nature of occupations referred to are claimed not only for trade and industry but also for commerce, farming, and homemaking.

The changes are more readily noted in farming and homemaking than in the other groups of occupations because the required additional understandings and new skills must be achieved by individuals and cannot be parcelled out to additional specialized workers. Dominantly, farming and homemaking are, respectively, one-man and one-woman occupations. The increasing size of the average farm and other illustrative elements of the increasing difficulty and complexity of farming were mentioned in considering the first problem (near the opening of this section). Any complete picture of the complexity cannot leave out of account the shift of farming from a "way of life" to what is now typically a highly competitive undertaking involving social and economic elements not previously prominent. Illustrations of the mounting complexity of homemaking are the rapidly expanding variety of commodities and services for the purchase of which the homemaker is responsible; the endless array of new mechanical appliances in the use of which she must become proficient; and the high capacity as a household executive and the more penetrating social understandings that must characterize the successful homemaker in our day.

Although the changes toward greater difficulty and complexity of occupations in trade and industry and in commerce may be as prevalent and as far-reaching as in farming and homemaking, or even more far-reaching, the extent and the exact nature of the trends have not been established and should be ascertained by much more extended investigation. The agency at work to ascertain other occupational trends (mentioned above in the discussion of the first problem) should supply more definitive indications than are now available. It may be assumed, for purposes here, that such changes are taking place in all the major occupational groups, except in unskilled and semiskilled employments.

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[1] *Vocational Education and Changing Conditions: Changing Economic and Social Conditions and Their Effect upon Vocational Education*, p. 15. United States Office of Education, Vocational Education Bulletin No. 174, General Series No. 5 (1934).

[2] *Ibid.*, pp. 95, 96.

As already stated, the two influences just described have combined to raise the age level at which vocational training is appropriate. In few regions are there left occupations for which training at the junior-high-school level would any longer be appropriate. In the early stages of the development of the junior high school one often heard vocational education advocated as an important function of the new institution. An interesting phenomenon of discussion of the junior high school over the period of the last twenty to twenty-five years is the early subsidence of this advocacy. The subsidence must have followed cognizance, in some part, of the two influences that have been reviewed here, although the child-labor laws, gradually moving upward in their level of application, must also have had their effect. The chief, if not the sole, connection between the junior-high-school period and vocations persisting in the current theory of the junior high school and the practices of the institution concerns the exploratory service. In this service the pupil is helped to some contact, in part experiential, with occupations in order to give him some appreciation of the world's work and a better basis than he would otherwise have for a choice of occupation when he comes to make that choice.

The level at which specialized preparation for occupations of less than strictly professional grade seems now to be centered ranges from late senior-high-school years through junior-college years. In some regions it may still be at the lower portion of this span of years, while in others it seems already to be rather dominantly in the junior-college period. Should the influences toward elevation continue—and there is little reason to believe they will not do so—we may well expect the period of vocational training for most of these occupations to *terminate* in junior-college years. At what level the program will *begin* must depend on the *length* of the curriculum, and this will vary with the extent of specialized preparation required for the given occupation. For occupations requiring long periods of preparation, the program will need to begin in later high-school years; and for occupations requiring shorter periods, it can be both begun and completed within the two-year junior-college span. The practical immediate adjustment must depend on the results of investigation of the local situation. For some localities the appropriate level, for the time being, may be the senior-high-school period, while for others it will reach into the junior college.

Reference to the junior-college period as the appropriate level in which in some localities to complete vocational training prompts mention of the stipulation in the Smith-Hughes Law that the training shall be of "less than college grade." If the interpretation of influences here undertaken is acceptable, amendment of the law at this point is already imperative and will become more imperative with each passing year.

Before leaving discussion of the problem of the school level at which vocational training is appropriate, mention should be made of an embarrassment to satisfactory integration of longer vocational curriculums (extending over more than two years) in systems where junior-college years are administered separately from later high-school years. It would appear that long curriculums are most effectively administered without a break and without a shift of the student from one institution to another; in this light, the separate junior college is ill-advised. The best school arrangement for the long curriculums is the continuous unit extending through later high-school years and the two junior-college years—the unit at the top of school systems organized on the six-four-four plan.

Finally, reference should be made to an aspect of the problem of the school level at which vocational training is appropriately raised to prominence by the decision to place it in late high-school years and junior-college years. We are here concerned with postponement to a higher grade level of a type of education appealing to many pupils as realistic because it is vocational. To such pupils much of education without vocational emphasis is distasteful and vocationalization at lower grade levels has often been an inducement for remaining in school and being contented with it. Two observations are in point in this connection. The first of these directs attention to the portions of the curriculum at lower school levels which are introduced for purposes of occupational exploration; generous provisions of an exploratory character will help to dislodge the objection. The other observation stresses the need of providing a general education that appeals to youth as realistic. It is hard to believe that present-day instructional trends cannot be carried far enough to convince youth of the significance of nonvocational education.

4. The problem of the nature of vocational training. (*a*) *Narrowly specialized versus broader training.*—An issue that arises at once in considering the problem of the nature of the vocational training to be provided is whether it should be highly particularized toward specific vocations or should be more broadly constituted. Careful examination of publications and of the policy of the Federal authority in vocational education indicates that this agency has from the beginning (1917) encouraged a highly specialized type of training involving narrow skills.[1] This inference has the support, for example, of the large number of bulletins reporting highly refined job analyses of employments and of many other bulletins outlining the materials and methods of instruction.

This policy harbors great dangers for youth enrolled in the curriculums organized in harmony with it. A highly specialized training presents obstacles to placement and renders workers less adaptable to variety of vocational opportunity. Ability restricted to narrow understandings and skills and lack of adaptability are especially inappropriate while occupations are as changeable as we now know them to be. Prosser, the first director of the Federal Board for Vocational Education (predecessor of the present Federal authority for vocational education) and long a leader in vocational education, has asserted that the "outstanding characteristic of gainful employments of all kinds is their changing character." [2] Fryklund, who has made a special study of trends in occupations, says, "Occupations seem no longer to be lifetime occupations." [3]

A fundamental objection to highly specialized vocational training is that it is based on an obsolete and outworn educational psychology. The report of the Advisory Committee on Education indicates clearly the origin of the theory of transfer of training on which the highly specialized programs encouraged by the Federal authority were erected, and it directs attention to the fact that the programs fostered have undergone no change corresponding to the shift of position in modern educational psychology.[4]

This shift of position may be instanced by a brief quotation from Judd. He reports Thorndike [5] as having asserted that transfer of training takes place only in those cases in which two complex mental processes contain identical elements. He says, "In opposition to the view thus summarized, the doctrine that education is training in generalization maintains that experience is changed in quality by its organization. There is no identity of successive elements in mental experience because experience is always a manifestation of organization." He then refers to experimental evidence of the *Gestalt* psychologists, which shows that "experience is always a complex, never an aggregation of elements." [1] In closing the treatment of the issue, Judd says:

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[1] John Dale Russell and Associates, *op. cit.*, p. 126.

[2] *Vocational Education and Changing Conditions: Changing Economic and Social Conditions and Their Effect upon Vocational Education*, p. 15. United States Office of Education, Vocational Education Bulletin No. 174, General Series No. 5 (1934).

[3] Verne C. Fryklund, "Training and Changing Technology," *Industrial Arts and Vocational Education*, XXII (December, 1933), 371.

[4] John Dale Russell and Associates, *op. cit.*, pp. 9–12.

[5] Charles Hubbard Judd, *Psychology of Secondary Education*, p. 438. Boston: Ginn and Company, 1927.

> We are justified in concluding the discussions of particular subjects and their psychology with the statement that the highest powers of the mind are general, not particular, that mental development consists not in storing the mind with items of knowledge nor in training the nervous system to perform with readiness particular habitual acts but rather in equipping the individual with the power to think abstractly and to form general ideas.
>
> When the ends thus described are attained, transfer of training, or formal discipline, has taken place because it is the very nature of generalization and abstraction that they extend beyond the particular experiences in which they originate.[2]

(*b*) *The main phases of vocational training.*—Consideration of the problem of make-up desirable for vocational training identifies three main phases, namely, (1) *the practical concrete activities and experiences of the occupation represented*, (2) *the related science and technical information related to the occupation*, and (3) *the social and economic understandings and appropriate attitudes peculiar to the occupation.* Although full understanding of the import of each phase might benefit from definition, discussion will proceed without further characterization, on the expectation that meanings will be clarified by implication from the treatment.

It may be conceded without argument that it is easier to provide training within the school in the second and third phases—respectively, (2) the related science and technical information and (3) the social and economic understandings and appropriate attitudes—than in the first phase as listed, (1) the practical concrete activities and experiences of the occupation. The greater difficulty of making provision for the first phase is associated with the great cost of elaborate equipment that is necessary if all the skills of the occupation are to be imparted within the school plant. The possibility of simplification of the responsibility of the school with respect to this phase of the vocational curriculum in trades and industry is suggested in the following quotation from a statement by Edwin A. Lee, a leader in the field of vocational education:

> Certain trades, for example, printing and automotive repair, lend themselves to full-time training under school conditions. The majority of trades are best taught by "co-operative vocational education," a scheme in which the trainee

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[1] *Ibid.*, p. 439.

[2] *Ibid.*, p. 441.

> works half-time in the vocation for which he is preparing, and attends school half-time. In almost all cases, however, a preparatory period of training is required, and this can be most effectively carried on in school shops or laboratories. The factor determining which type of program is to be used is the best interest of the trainee.
>
> The essential points [in arranging the co-operative program] are that the individual concerned is in training rather than *employed;* that the scheme is the most effective method of training which can be devised for the particular occupation; and that the "master" of the apprentice is the school, not the industry.[1]

The co-operative plan appears to be no less appropriate for commerce, agriculture, and homemaking than for trades and industry. To illustrate applicability of the plan to business occupations one need only refer to a recent bulletin of the Office of Education which describes a number of plans of co-operative training in retail selling.[2] Vocational training in agriculture has its analogue of the part-time co-operative plan in what is known as the "home-project plan," which has latterly expanded into "long-time programs of farm practice." [3] These programs usually begin, in each boy's first year in the curriculum in vocational agriculture, with a single project; and for each succeeding year and as the boy matures, they involve extension by increase in the size and scope of the enterprises on which he is engaged. The home project was accepted as a vital part of the vocational program in home economics from the beginning under the Smith-Hughes Law in 1917, and it has been gaining in importance in both policy and practice since that time.[4] The George-Reed Act of 1929, under which the opportunities for agricultural and homemaking education were made more generally available than they had been under the Smith-Hughes Law, provides for two types of programs, in one of which home projects are "strongly recommended" and under the other of which such projects are required.

[1] Edwin A. Lee, "Some Basic Propositions concerning Vocational Education," *Occupations,* XII (January, 1934), 61.

[2] Glenn Oscar Emick, *Co-operative Training in Retail Selling in the Public Secondary Schools.* United States Office of Education, Vocational Education Bulletin No. 186, Commercial Series No. 10 (1936).

[3] *Supervised Farm Practice Planning:* Procedures in Formulating and Planning Long-Time Programs of Farm Practice for Students of Vocational Agriculture. United States Office of Education, Vocational Education Bulletin No. 163, Agricultural Series No. 41 (1932).

[4] *The Home Project in Homemaking Education:* Place, Function, and Value of the Home Project in the Vocational Program. United States Office of Education, Vocational Education Bulletin No. 170, Home Economics Series No. 16 (1933).

It is among the several merits of the part-time co-operative plan, including its analogues in projects on the farm and in the home, that it helps to bring school and community together and makes it possible for pupils in the schools to share realistically in the life of the community. The sharing is in one aspect of living only, the vocational, but participation in one aspect is at the least an admission of desirability and should lead in time to a sharing in activities representative of all aspects of living.

Consideration of the means of providing this first phase of training, the practical concrete activities and experiences, should take note of the attitude of labor on how it may and may not be accomplished. This attitude has been expressed in an extensive appendix, "The Experience of Labor with Trade and Industrial Education," to the report on vocational education prepared for the President's Advisory Committee on Education.[1] The representatives of organized labor say:

> The skills of the manual trades can be learned only through doing. The technical knowledge necessary to the all-round modern craftsman must be acquired in definite integration to the training on the job. . . . Under the trade-school and co-operative-school method, the work attitude is that of the schoolboy rather than that of the wage earner.[2]

At a later point in the statement is the recommendation that "all pre-employment training for a specific trade be gradually eliminated." [3] The writers must unquestionably have some justification for making so extreme a recommendation. It seems probable, however, that further experimentation with current arrangements, modified with the aim of correcting deficiencies, would find these arrangements effective and desirable from the standpoint of all concerned.

The second phase of vocational education, the related science and technical information of the occupation, will be passed by here with the comment that, although of great importance, its recognition, as judged by the generous place already accorded it in current programs of vocational education, has met with no serious obstructions. To be sure, problems in administering this phase are far from fully solved, but they appear to be nearer satisfactory solution than problems relating to the other two phases.

The third phase, the social and economic understandings and appropriate attitudes peculiar to the occupation, is in need of brief special comment. In further definition of this phase it may be said that it does not refer to the social and economic understandings essential for all members of society irrespective of occupation pursued, which falls logically under the heading of *general* (instead of vocational) *education.* Illustrations may be used to clarify thought in this area. All members of society should achieve some understanding, as a part of their general education, of problems of labor organizations. However, workers in skilled occupations, for example, in the field of trades and industry, have need, as a part of their vocational preparation, of a more extended and specialized understanding of these problems than is required for general education. Again, all citizens, whether residents of urban or rural communities, should achieve, as a part of their general education, some understanding of the economic problems of agriculture; but the youth looking forward to living and working on the farm must go further into these problems than one who is to make his residence in an urban community and work at some occupation characteristic of urban life. It is unfortunate that present programs of vocational education have been so slow in recognizing the needs in this phase of vocational education. Scrutiny of Federally-aided programs indicates that those in the field of trades and industry have done much less with this phase than have the programs in agriculture and homemaking; and of the three programs, homemaking seems to have done most. The obligation is hardly less in one of these fields than in another.

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[1] John Dale Russell and Associates, *op. cit.*, pp. 241–289.

[2] *Ibid.*, p. 260.

[3] *Ibid.*, p. 284.

(*c*) *The subproblem of sequence.*—After having come to a decision on the main phases of programs of vocational training, we should still find it necessary to determine the sequence in the introduction of the phases into the curriculum, at least for the longer curriculums extending through three or four years. In the shorter curriculums extending through a single year or two years, instruction in all three phases would need to go forward at the same time.

Several statements may be made that should serve as working principles of sequence in the longer curriculums, among them the following. Because the skills involved in an occupation are prone to be weakened through disuse and because they should be at their best when the student is ready to enter employment, they should be developed near the end of the curriculum. This means that the phase we have designated as the practical concrete activities and experiences, in which the skills are developed, should be near or at the end of the curriculum. Ordinarily, the related science and technical information are best imparted at the time the skills are being developed, although in some part this phase of the curriculum may be introduced prior to impartation of the skills. This arrangement would call for the instruction in the social and economic understandings in the early part of the curriculum—an appropriate arrangement, because this phase would be, even though not strictly general education, general for certain groups of occupations. Under this type of sequence the student could be permitted, as is often desirable, to shift his choice of specific occupation within the group after entrance into the curriculum and without loss of time or training. The chief objection to placing the social and economic phase first is the desirability of maturity of the student as he considers the problems involved. However, this objection is largely removed by the advisability, previously considered, of placing all vocational training in late senior-high-school and junior-college years.

5. The problem of recruiting teachers acceptable for vocational instruction. Still another problem in administering a program of vocational education is that of finding suitable teachers. It is a double-headed problem of recruiting persons competent to give practical instruction in the vocations represented in the programs and at the same time getting the kinds of persons, judged in a cultural way, with whom society would like to have its youth in long-time association. Discussion here may proceed on two assumptions with respect to the level at which vocational education is to be given, the senior-high-school level and the junior-college level.

(*a*) If it is assumed that vocational training is, for a time at least, to be given at the senior-high-school level, it appears that we are approximating a solution of this problem of suitable teachers. The programs available for teachers-in-training in agriculture and homemaking now typically extend through four years and lead to Bachelors' degrees—as does the typical program in nonvocational fields. The persons enrolled in these curriculums have usually had practical experience, respectively, on the farm and in the home. Analogous conditions are being approached, also, in the preparation of commercial teachers. The lag in adequacy applies chiefly to the field of the skilled trades in industry, where the level of general education attained is deplorably low. The following quotation from a bulletin published by the Federal authority in vocational education, quoting reports of the Committee on Trade and Industrial Teacher Training of the American Vocational Association, is indicative of conditions in the industrial field:

> The general education specified for shop teachers is surprisingly low. Over half the States are satisfied with only elementary education, and nine States

make no specification whatever. With the rise in standards of employment in most industries calling for technical skill and the great increase in the number of high-school graduates, it is a very serious deficiency to permit such a low standard. Every shop teacher should acquire a high-school training, or its equivalent, within a reasonable time, if the standard of admission is less than high-school graduation.[1]

Two chief causes, operating together, may be set down in explanation of the condition. One of these is the competition of industry with the school for the persons with the vocational competence required for vocational teaching. Such persons are able to earn as much in industry as they would receive in salary for vocational teaching and without meeting requirements of long periods of general education for entrance upon teaching, if long periods were imposed. The other cause is the Federal authority's policy of a highly specialized type of vocational training (just considered in another connection), which makes imperative the recruitment of teachers with vocational skills imparted by extended vocational participation. This requirement makes practically impossible the recruitment of teachers with an extent of general education equal to that of other secondary-school teachers. A policy modified in the direction of greater generalization of vocational training, one which assumed that the highly specialized application would be learned during the early period of employment, would make possible the early elevation of standards of teacher preparation in the industrial field to standards on a par with those of agriculture and homemaking.

(*b*) On the assumption that most vocational curriculums will advance to the junior-college level, as predicted in the discussion on page 68, we are not so near solution of the problem of recruiting acceptable teachers. We can expect that the standard of preparation for vocational teachers will hardly be less than the Master's degree or the year of graduate training that is now typically imposed as a minimum for teachers of academic subjects in junior colleges. The lag in adequacy might at the outset be greater than now, while much of vocational education is still at the senior-high-school level. However, there are some grounds for the expectation that the extent of preparation will move up with the need, for standards for teachers of academic subjects at the senior-high-school level have recently experienced a marked tendency to advance to the requirement of the Master's degree, and opportunities for programs of graduate training in certain of the vocational fields represented in the secondary schools have been on the increase.

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[1] *Vocational Teacher Training in the Industrial Field:* Four Reports to the Committee on Trade and Industrial Teacher Training of the American Vocational Association, Inc., p. 30. United States Office of Education, Vocational Education Bulletin No. 172, Trade and Industrial Series No. 50 (1934).

6. The problem of organizational relationships of vocational education to general education. The last problem of vocational education to be considered here is that of its organizational relationships to general education—what is sometimes referred to as the problem of "horizontal organization" of secondary education. At one extreme of position are persons who would insist on separate schools for vocational education. Advocacy of this sort may be assumed in the following quotation from Snedden.[1] Associated with the assumption is the less apparent implication of state rather than local schools.

> Suppose California were ready to have thorough-going training of automobile repair mechanics, or of grape-growers, or of truck drivers, or of homemakers through publicly supported schools. For the first of these vocations the entire state might need four schools; for the second, two; for the third, one; and for the fourth, ten. No person should be admitted under nineteen years of age; traveling and boarding expenses should be paid from public funds; courses should be intensive and nearly all training in skills done on strictly commercial product work, either provided by the school as now in the cases of schools of medicine or nursing, or in co-ordination with external producing agencies as now in the case of many teacher-training institutions.[2]

Of an opposite opinion are persons who believe that all programs should be offered in a single institution, which they refer to as the "comprehensive" high school.

Judged by current practice in matters of horizontal organization, the influence of the Federal authority has encouraged separation of vocational education. This influence is seen in the number of separate "trade" and "vocational" schools that have been organized since the passage of the Smith-Hughes Act. It is seen also in the separation of schedules for Federally-aided instruction in agriculture and homemaking in many high schools throughout the country,[3] a separation that often makes difficult the proper articulation of these schedules with those for other subjects. The difficulty has been so great as sometimes to discourage the introduction of Federally-aided instruction in the schools. The field of homemaking has witnessed less difficulty of this type than has agriculture, especially since the passage of the George-Reed Act in 1929. The fact is that there is nothing in the Smith-Hughes Law that justifies encouraging establishment of separate trade, or vocational, schools and little that justifies insistence on separation of schedules; for the most part the influence or insistence goes beyond the provisions of the law.

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[1] David Snedden, "Whither Vocational Education?" *Occupations,* XV (February, 1937), 389–394.

[2] *Ibid.,* p. 393.

[3] John Dale Russell and Associates, *op. cit.,* pp. 129–130.

The clear implication of an integrated democratic society is for a unified system of schools and not for a system of class schools, whether the stratification of society recognized in these schools is that of hereditary nobility or of occupational levels. Therefore, the burden of proof for separatism should be on that agency or organization that would encourage it. The Federal authority has never presented a shred of evidence in support of separatism. The chief support of separatism would be the assumed need of specialized schools arising out of the policy of highly specialized types of training involving narrow skills, and we have already raised the issue of the necessity and desirability of that policy. The program in harmony with that policy should never have been launched without objective justification; "experience" of the separatists and the example of European countries, with their tradition of social stratification, should not be accepted as adequate substantiation.

In the absence of adequate evidence, a few statements may be ventured concerning the necessity for separation of vocational from general education in smaller and in larger communities. In smaller systems, in which enrollments at the senior-high-school level do not warrant more than one school (and this includes the overwhelming majority of school systems of the country), the establishment of separate vocational schools is on its face so preposterous that not even the separatists have proposed it. For these situations, as we have already reported, they have pressed for internal separation, and that to a degree unjustified by the necessities of effectiveness. Efforts within these smaller communities should be toward combining effectiveness in vocational education with a minimum of disruption of normal schedules.

The issue of separate vocational schools is, therefore, one that concerns only the systems with enrollments large enough to call for two or more plants at the upper secondary-school level. It is safe to say that in most cities of larger size the socio-economic distribution of the populations over the areas of individual cities is not uniform but is usually somewhat differentiated, so that the socio-economic distribution of pupils varies from one high school to another. This diversity encourages varying degrees of vocationalization from one high school to another. Thus, to serve adequately the educational needs of the youth in its vicinity, one high school might find it advisable to offer vocational training in a number of occupations, while another might serve largely a college-going group.

In this connection it seems desirable to indicate the appropriate significance of the term *comprehensive* as applied to a school. To be comprehensive it is not necessary for a school to include in its program preparation for *all* vocations. A school should be regarded as comprehensive if it includes in its program a breadth of vocational offering that meets the needs of its constituency—not preparation for all occupations. It is conceivable that schools in certain areas of large cities might need to do relatively little in the way of training for skilled trades or other occupations for which preparation is completed at the secondary level and still be comprehensive of the needs of their constituencies.

We may conclude discussion of this problem of the organizational relationships of vocational education to provisions for general education by considering it in four main aspects, namely, the relationships of (*a*) administrative control, (*b*) courses and classes, (*c*) schedule, and (*d*) housing. A source of confusion in most discussions of the problem is the failure to separate these aspects of the problem and to examine each one alone.

(*a*) To all appearances the nation is practically of one mind with respect to the issue of unitary or dual administrative control of general and vocational education. In a single state only—Wisconsin—are there separate state boards for general and for vocational education. That state, too, has provided for separate local boards for the two types of programs—separate except for the fact that the local superintendent of schools is a member of the local board for vocational education. Ample evidences are at hand in Wisconsin that local authorities undertake to bridge the statutory separation by various devices which admit the necessity of a unified system of schools.

There is no disposition here to argue against expertness in the direction of vocational education. Doubtless state departments of education should have specialists on their staffs to supervise the local programs of vocational education, and local school systems of good size will require specialists to direct and supervise the vocational programs. However, all such specialists must be responsible to the chief administrative officers, who are, respectively, the state commissioner or superintendent of education and the local superintendent of schools.

(*b*) It should go almost without saying that for the most part courses and classes organized for vocational education should be focused on the vocational objective. In administering the instruction in these courses and classes there should be careful avoidance of confusion of vocational with general education. On the other hand, the principle of separation in this aspect should not be carried so far that pupils with general-educational objectives are never admitted to such courses and classes. On occasion, pupils with recreational interests in the activities represented in a course or class or other pupils seeking its try-out values should be permitted to enter classes designed for vocational purposes. Permission of this kind will be more appropriate for the first and more general than for advanced and more narrowly specialized courses. Differentiation of instructional activities to meet diverse individual interests and needs of this sort is typically more feasible in vocational classes than in many subjects of the academic offering.

(*c*) It follows from what has just been said concerning the dominant singleness of purpose of vocational courses and classes that the schedule of the school should be so organized as to avoid confusion of objectives. However, no objective evidence is at hand to support insistence that vocational instruction must extend, for example, through a continuous three-hour period, thereby warping the portions of the schedule of the school which are devoted to its nonvocational functions. The part-time co-operative program, in some places where it is operated, may require accommodations of the schedule not necessary for full-time vocational curriculums.

(*d*) The issue of separate housing for vocational and for general education has already been discussed while considering the general problem, with the trend of conclusion in conflict with separation. The conclusion should not, however, be accepted as applicable in all situations, as it would be much better (even though the preferability of a unitary system is assumed from the standpoint of democratic American social policy) to leave solution of the problem in each large school system open to determination by objective inquiry. The lines of inquiry would include such factors as the geographic distribution within the city of youth in need of occupational training, the opportunities for employment, and the facilities for housing at the time of inquiry.

Summarizing on the problems. The canvass of problems now being brought to a close finds final determinative evidence all too frequently lacking; nevertheless it points to inferences tentatively acceptable until the requisite investigations have been made.

The conclusions may be briefly restated:

1. Occupational trends in the Federal Census disclose the need for vocational education, although we shall need more extended and refined inquiry in order to project a training program either on a national scale or in specific localities. Certain Federal and other agencies are at work, aiming to meet the need for more definitive information concerning trends.

2. The development of a program of vocational training must be accompanied by an adequate distributive service, which aims to guide youth into the occupations and the opportunities for occupational preparation available. In a democratic society the procedure in distribution will be monitory; it may not be compulsory, except as facts concerning opportunities and abilities may be coercive. An important admonition relates to avoiding use of vocational curriculums as a dumping ground for less competent youth.

3. The level at which vocational preparation seems increasingly appropriate is the junior-college period, except that long vocational curriculums will need to begin in senior-high-school years and that in some areas, where employment for the time being begins earlier, the programs may for some years be pitched to be completed in senior-high-school years.

4. In the light of the modern psychology of generalized experience and rapid changes in occupations, vocational programs should avoid highly specialized training aiming at narrow skills. They should consist of three chief phases, namely, (*a*) practical, concrete activities and experiences of the occupations represented, (*b*) related science and technical information, and (*c*) the social and economic understandings and appropriate attitudes. It is easier to provide in the school for the second and third phases than for the first; the obstacles to provision of the first should be in large part overcome by resorting to part-time cooperative plans. The third phase is too often neglected.

5. Except for the field of trades and industry, the problem of recruitment of adequately trained teachers has been moving toward solution. A policy of less highly specialized training for narrow skills in the vocational programs would facilitate solution.

6. The partial trend toward setting vocational education apart by providing it in separate schools and in independent schedules is, from the standpoint of the needs of a democratic society and optimum articulation, to be deplored. A policy of less highly specialized vocational training would permit a nearer approach to an integrated system.

THE VOCATIONAL PROGRAM

Senior-high-school programs considered. It was pointed out earlier how certain trends are raising the level at which vocational education (of less than professional grade) is appropriate and how, except in some geographical areas and except for long curriculums, this type of education will eventually be appropriately offered in the junior college. Suggestions for a vocational program to be made here nevertheless apply to the senior-high-school level, chiefly because this book has to do with the administration of high schools and also because, in some areas (as already admitted) and for some time, it will be expedient to offer opportunities for vocational training at the senior-high-school level.

An investigative approach. The nature of the consideration given the several problems of vocational education in the foregoing section should indicate, without the need of further emphasis, the urgency of undertaking no program of vocational education without maintaining an investigative approach. This approach is applicable to all aspects of the problem, among them decision on the occupations for which preparation will be provided, the make-up of the training, and the articulation of vocational and nonvocational training. For evidence on the occupations in the region or the country as a whole, the local school authorities must, of course, rely on investigations and investigators outside the local communities; but if evidence from the locality is not otherwise made available, the local school authorities must be responsible for collecting it, either independently of other agencies or cooperatively.

The uses to which suitable evidence can be put are suggested by the reports made to W. C. Reavis by eighty high schools, scattered over the country, which have undertaken local "vocational surveys." In an unpublished study by Professor Reavis it is stated that, in the order of frequency of resort to them, the uses are: (1) in guiding pupils in their selection of fields of training, (2) in encouraging enrollment in vocational courses, (3) in organizing new vocational courses, (4) in purchasing new equipment for vocational courses, (5) in modifying standards of attainment in courses involving technical skill, and (6) in restricting enrollment in vocational courses. The procedures reported as being followed in making the vocational surveys are chiefly personal interview or contact, visits to plants, questionnaire, and dependence on some outside organization. A type of inquiry frequently used in the same group of schools to supply evidence that will help to ascertain the nature of a desirable vocational program is the follow-up study of former students.

The vocational curriculums in operation in secondary schools. The procedures by which the vocational offering of the secondary school should be determined are expressed or implicit in the foregoing section on the problems of vocational education. At no point in that discussion is it urged that these procedures in any school or community include sheer imitation of what is done in other schools or communities. However, some values may be derived from considering what the offering has been in a number of secondary schools. Tabulations of the vocational offerings in four main areas were made for the National Survey of Secondary Education. These tabulations have been adapted in Tables 8–11, which report percentages of schools of different types providing instruction in certain vocational courses or subjects.

TABLE 8

Percentages of 340 Comprehensive High Schools and of 110 Trade Schools Receiving Federal Aid for Trade Courses Preparatory for Different Vocations [1]

Vocation	Comprehensive	Trade	Vocation	Comprehensive	Trade
Aeronautics	1.0	1.1	Millinery	1.0	6.6
Architecture	1.4	8.8	Mining	.3	—
Auto mechanics	20.7	39.6	Painting	1.0	8.8
Blacksmithing	.3	—	Patternmaking	5.8	14.3
Bodybuilding	.3	—	Plastering	—	1.1
Bookbinding	—	2.2	Plumbing	2.0	12.1
Building trades	2.4	2.2	Power-machine operation	—	5.5
Cabinetmaking	4.4	17.6	Printing	14.6	31.9
Carpentry	8.5	20.9	Radio	—	1.1
Concrete	.3	—	Sheet metal	3.7	20.9
Drafting	8.2	20.9	Shipbuilding	.3	—
Electricity	14.3	36.3	Shoemaking	—	4.4
Engineering	.3	—	Steam engines	—	2.2
Forging	.7	1.1	Stonework	.3	—
Foundry	.3	2.2	Tailoring	.3	3.3
Jewelry casemaking	—	1.1	Textiles	—	5.5
Lithography	—	1.1	Trades	1.7	—
Machine drawing	.3	1.1	Upholstery	—	1.1
Machine shop	22.8	39.6	Watchmaking	—	1.1
Masonry	—	5.5	Welding	.7	3.3
Manual training	1.0	—	Woodwork (mill)	.7	1.1
Metal trades	.7	1.1	Woodworking	4.4	13.2

Table 8 presents the evidence concerning courses preparatory to a wide variety of vocations of an industrial character, offered in many comprehensive high schools and trade schools. Except for the designations *manual training* and *trades* in this table, the appearance of which in the original tabulation is not explained, the course names suggest specific occupations. It may be noted that, as might be expected, the percentages are typically larger for the trade schools than for the comprehensive high schools.

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[1] Adapted from Table 16 in Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *The Horizontal Organization of Secondary Education*, p. 36. National Survey of Secondary Education, Monograph No. 2. United States Office of Education, Bulletin No. 17, 1932.

TABLE 9

PERCENTAGES OF 760 COMPREHENSIVE HIGH SCHOOLS, 87 TRADE SCHOOLS, AND 16 COMMERCIAL HIGH SCHOOLS OFFERING CERTAIN COMMERCIAL SUBJECTS [1]

SUBJECT	COMPREHENSIVE	TRADE	COMMERCIAL
Advertising	1.4	1.5	—
Banking	.4	—	6.3
Bookkeeping	79.7	12.6	93.8
Business English	1.0	12.6	6.3
Business organization and management	8.6	—	37.5
Commercial arithmetic	3.9	1.1	6.3
Commercial geography	2.4	—	—
Commercial law	6.6	—	12.5
Filing	1.6	—	6.3
General business training	35.8	12.6	56.3
Machine calculation	13.6	9.2	68.8
Marketing	.9	3.4	—
Multigraphing	.4	1.1	6.3
Office practice	42.4	9.2	75.0
Retail distribution	3.4	2.3	18.8
Salesmanship	27.2	8.0	56.3
Secretarial training	.1	—	6.3
Shorthand	73.3	11.5	100.0
Stenotyping	.1	—	—
Typing	82.6	12.6	100.0
Commerce and industry	—	—	6.3
Foreign trade	—	—	6.3
Machine bookkeeping	—	—	12.5
Machine billing	—	—	6.3

Tables 9, 10, and 11 contain lists of "subjects" rather than vocations and do not as often, on this account, indicate directly the specific occupations for which they are intended to provide preparation. Certain of the subject titles in these tables, also, are generic rather than specific, although a large majority of the designations point to specialized aspects of the areas represented.

The nature of the tabulations is such as not to disclose adequately the make-up of vocational curriculums; that is, as to their recognition of the three main phases of (1) practical concrete activities and experiences, (2) related science and technical information, and (3) the social and economic understandings peculiar to the occupations. It is safe to say, however, on the basis of examination of typical curriculums, that the first two phases received more nearly adequate treatment than the third.

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[1] Adapted from Table 21 in Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *ibid.*, p. 74.

TABLE 10

PERCENTAGES OF 760 COMPREHENSIVE HIGH SCHOOLS, 87 TRADE SCHOOLS, AND 17 TECHNICAL HIGH SCHOOLS OFFERING CERTAIN SUBJECTS IN HOME ECONOMICS [1]

SUBJECT	COMPREHENSIVE	TRADE	TECHNICAL
Clothing construction	54.3	27.6	11.2
Cooking	16.2	9.1	41.8
Dietetics	.7	—	5.9
Domestic art and science	3.6	—	—
Home economics	2.4	—	5.9
Home mechanics	.7	1.1	—
Homemaking	47.8	24.1	17.6
Interior decorating	.5	3.4	—
Millinery	—	11.5	5.9
Tailoring	—	5.7	—
Textiles	.5	4.6	—
General courses	53.6	24.1	23.5

TABLE 11

PERCENTAGES OF 760 COMPREHENSIVE HIGH SCHOOLS, 87 TRADE SCHOOLS, AND 9 AGRICULTURAL HIGH SCHOOLS OFFERING CERTAIN AGRICULTURAL SUBJECTS [2]

SUBJECT	COMPREHENSIVE	TRADE	AGRICULTURAL
Agriculture (general)	18.2	5.7	33.3
Animal husbandry	16.1	16.1	88.9
Dairying	7.5	11.5	44.4
Farm accounting	.5	4.6	—
Farm management	2.5	3.4	11.1
Farm mechanics	11.8	13.8	55.6
Field crops	15.8	13.8	88.9
Forestry	.4	4.6	11.1
Fruits	.5	4.6	33.3
Horticulture	1.7	6.9	—
Poultry	.9	9.2	11.1
Soils	.8	—	22.2

[1] Adapted from Table 23 in Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *ibid.*, p. 84.

[2] Adapted from Table 25 in Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *ibid.*, p. 87.

The make-up of short and long vocational curriculums. It is to be expected that short and long curriculums might have differing proportions of general and of vocational subjects, and that the longer curriculums would have the larger proportions of general content. No evidence at hand concerning practice bears directly on this point, but Powers has reported a study [1] of the "academic" and "nonacademic" content of curriculums that supplies significant related evidence. He investigated the make-up of curriculums in 73 public trade schools and vocational schools and in 20 public technical schools and technical high schools. The prevailing length of curriculums in the former group of schools was two years, and in the latter group, four years. The following quotation from his report indicates that the differences are in harmony with the statements just made:

> It was found that the group of 73 public trade and vocational schools offered a combined total of 326 curriculums made up of 957 academic subjects and 905 nonacademic subjects. The average number of subjects to a curriculum was 29.4 for the academic subjects and 27.8 for the nonacademic subjects. The 20 public technical schools and technical high schools offered a total of 135 curriculums, which were composed of 739 academic subjects and 412 nonacademic subjects, or an average of 54.7 academic subjects and 30.5 nonacademic subjects to a curriculum. Among the trade and vocational schools the number of academic and nonacademic subjects per curriculum was approximately the same, while in the group of technical schools and technical high schools the number of academic subjects to a curriculum was approximately 1.8 times the number of nonacademic subjects. This ratio indicates the relative emphasis placed on academic subjects by the technical schools and technical high schools. It discloses an intent to make the curriculums in this group of schools in larger part general and is in harmony with the typically greater length of curriculums in these schools and the aim of some of the curriculums to prepare for engineering and other colleges.[2]

Powers reports that in his investigation, because the "exact content" was not known to him, he excluded from the tabulations certain academic subjects, such as related English, related mathematics, and related science, and certain nonacademic subjects, such as hygiene, library, music, and physical and health education. The use of the word *related* indicates that the academic subjects not tabulated are intended to provide occupational training. In all probability most of the *nonacademic* group are intended to contribute to the pupils' general education. From certain of these instances it is proper to infer that not all the general education in the vocational curriculums is or must be *academic.*

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[1] H. W. Powers, "The Offering in Trade, Vocational, and Technical Schools," *School Review*, XLIII (May, 1935), 337–349.

[2] *Ibid.*, p. 347.

Elective subjects in vocational curriculums. The investigation by Powers just drawn upon inquired into the extent and nature of election permitted in the vocational curriculums represented. He found that "comparatively few of the seventy-three public trade and vocational schools were found to provide for electives." [1] However, he found that fourteen of the twenty public technical schools and technical high schools "provide for electives in some or all of the curriculums offered." He illustrates the practices in this regard by reporting the subjects offered as electives in the electricity curriculums of eight of this group of twenty schools. In the following listing each group of subjects indicates the electives in one school. Examination of these lists finds some of the electives bearing chiefly on general education and others pointed toward occupational specialization or college preparation.

NINTH YEAR

Art, vocal music, instrumental music
Physical education, military training, or band
Vocational mathematics or algebra; general science or biology
Printing, sheet-metal work, or woodworking
Industrial arithmetic or algebra

TENTH YEAR

Shop mathematics or geometry
Physical education or military training
Biology, Spanish, art, vocal music, instrumental music
Physical education, military training, or band
Algebra or geometry
General mathematics or geometry

ELEVENTH YEAR

Physical education or military training
Biology, physics, chemistry, Spanish, drawing, art, vocal music, instrumental music
Physical training, military training, or band
Intermediate algebra, trigonometry
Solid geometry, algebra; five points from modern history (5), twelfth-grade English (5), advanced mathematics (5), glee club (2½), orchestra (2½), band (2½), voice culture (2½), a cappella club (1), journalism (2½), public speaking (3), dramatics (2½), physical training (2), during last two years
English VI or business English; physics or chemistry; one from drafting, architecture, advertising, Latin, Spanish, public speaking, and salesmanship

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[1] *Ibid.*, p. 347.

Twelfth Year

Mechanical drawing, bookkeeping, or salesmanship
Physical education or military training
Journalism, public speaking, chemistry, physics, biology, Spanish, drawing, retail selling, art, salesmanship, vocal music, instrumental music
Physical education, military education, or band
English IV
Intermediate algebra, trigonometry
American history, civics, or economics; chemistry or physics; one from English, journalism, and eleventh-year subjects[1]

Special attention has been directed to the practice in some schools of allowing for electives within vocational curriculums because it seems undesirable, as is done in many schools, to prescribe all portions of such curriculums. Although pupils committed to entrance to vocations and enrolled in specialized vocational curriculums may have less need than pupils still in a state of indecision in such matters for flexibility in the curriculum patterns, the need and desirability are nevertheless present for variation in these patterns to recognize special nonvocational interests and to provide for other individual differences. The recent trend toward longer vocational curriculums has in all probability encouraged the introduction of greater flexibility in larger proportions of vocational and technical schools.

Extent and characteristics of part-time co-operative programs. Discussion of the problems of vocational education in the preceding section made reference to the part-time co-operative program; that is, the program in which the pupil in training for a vocation spends a part of his time in school and a part in employment in the occupation in which he plans to engage on leaving school. The favorable attitude toward the co-operative plan in the brief discussion referred to has the corroboration of the favorable opinion entertained for the plan by many leaders in and out of the field of vocational education. The prevalent commendatory opinion of the co-operative plan suggests the desirability of reporting on the extent to which it is being followed and on certain other aspects of its mode of administration in practice. The source of information is a chapter on the subject in a monograph of the National Survey of Secondary Education.[2]

The prevalence of schools having co-operative programs. Evidence is not available on the full extent of provisions for co-operative training in secondary schools of the country. The monograph of the

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[1] *Ibid.*, p. 348.
[2] Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *op. cit.*, Chap. III.

National Survey, referred to previously, reports that it was possible to locate 167 schools with such curriculums for the school year 1929–30. Procedures used suggest that there were many more co-operative programs in operation. Whether the number has decreased or increased since 1930 one can only conjecture, although doubtless some of the arrangements must have disappeared during the years of the depression, perhaps to re-emerge with the later partial trend toward increased employment. Schools with these co-operative programs were found in all sections of the country. The Survey reports that, although the *proportion* of trade schools with co-operative programs was greater than that of comprehensive schools, because of the much larger total number of comprehensive schools, "well over half of the programs . . . were located in comprehensive schools."[1]

The size of schools with co-operative programs. The National Survey found two thirds of the schools with co-operative programs having enrollments in excess of 500 pupils, a sixth having enrollments between 250 and 500 pupils, and the remaining sixth having fewer than 250 pupils. As explanation of the larger proportion in the larger schools, the report suggests that the larger schools are in larger communities where more opportunities are available for co-operative arrangements. Further consideration will be given below to the problem of the co-operative plan in small schools and communities.

The occupations represented in the co-operative curriculums. The Survey found as many as 140 different occupations represented in the co-operative programs of training. About half this number were classified as being in the "industrial-arts field." The most frequently recurring offerings, in the order of decreasing numbers, were in machine shop, auto mechanics, electricity, printing, carpentry, patternmaking, drafting, sheet metal, plumbing, cabinetmaking, millwork, and toolmaking. Illustrative of offerings less frequently made were those in radio, painting, molding, shoemaking, masonry, and upholstery. In the commercial field, the most frequent offerings were in retail selling, clerical occupations, "commercial" occupations, office practice, and banking. Co-operative programs were much less frequently provided in household arts and agriculture. Among offerings in household arts were nursing, housework, and dressmaking, and among those in the agricultural group were "agriculture," forestry and floriculture, gardening, and poultry. In interpreting the small numbers of schools represented in the household arts and agriculture, it is well to bear in mind that, besides these part-time co-operative arrangements paralleling those in industrial arts and commerce, these two fields provide also analogues of the part-time co-operative plan through the requirement of home projects. Among scattered occupations represented in the co-operative programs—occupations not classified in the four fields previously named—are chemist, pharmacist, jeweler, telegrapher, compositor, and optician.

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[1] *Ibid.*, p. 97.

Enrollments in co-operative curriculums. The typical enrollment in part-time co-operative curriculums is small. For the curriculums in six specialties, among them auto mechanics, electricity, and patternmaking, for which the National Survey reported evidence,[1] the median enrollments ranged from 3 to 12 per school. The single exception to this range was retail selling, for which the median enrollment was 35. It is clear that at the time of the inquiry, which was sometime after the onset of the depression, neither the number nor the proportion of youth enrolled in co-operative curriculums was large, compared with those enrolled in other vocational curriculums.

Length of co-operative courses. The median number of semesters in co-operative work for all the curriculums ranged between 4 and 5. The median number of working hours per semester ranged between 360, for retail selling and salesmanship, to 650, for patternmaking.

Rates of pay. The median pay per day for co-operative work was found to be $2 for most of the occupations represented. At five days per week, this is a median weekly wage of $10.[2] Almost all studies of co-operative plans find schools in which the youth enrolled receive no pay for the co-operative work and others in which the rates of pay are much lower than the medians reported in the National Survey. One of the features of the typical part-time co-operative plan that is often commended is the fact that it has usually afforded the opportunity to earn while learning—a feature that often helps to keep youth in school, both through affecting the family income and affording some economic appeal to the youth themselves. It would be unfortunate if practice moved toward eliminating the pay. Even with pay, there is some danger, against which school authorities must set up safeguards, that enrollees will be exploited on behalf of employers.

The more strictly part-time schools and classes. Although the name by which the type of organization of vocational education just dealt with suggests that it is a part-time program, it is not strictly so;

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[1] *Ibid.*, p. 101.

[2] *Ibid.*, p. 103.

it is in intent a full-time educational program in which a part of the education is given in the school and the remainder in employment. The more strictly part-time programs are those afforded in (daytime) continuation schools and classes and in evening schools and classes. Any consideration of the program for vocational education must take account of these two types of provisions.

Reports on continuation schools and classes for the country as a whole show a rapid and steady increase in enrollment from 1918—the first year of Federal aid for vocational education and of reporting on continuation programs—to 1928, when the enrollment went well over 400,000. From this year to 1934 the enrollment fell off, owing chiefly to decrease in employment, until it dropped below 300,000. It was to be expected that, as part-time enrollment dropped, attendance in full-time schooling, both vocational and nonvocational, would increase. Beginning in 1935, the continuation enrollment increased, but it had not attained its pre-depression proportions in 1937, being still short of 400,000.

Enrollment in evening schools and classes gained rather steadily from 1918 to 1932, reaching a total of about 400,000 in 1932, and holding its own fairly well up to and including 1937. In 1937 the total number enrolled in these two strictly part-time provisions was almost 800,000,[1] a figure certainly large enough to command respect for part-time education as a substantial portion of the total secondary-school enrollment of the nation.

A. **Continuation schools.** (1) *The offering.*—The offering in the 312 continuation schools investigated in the National Survey of Secondary Education was found to be exceedingly varied. Fifty courses were found to be offered in ten or more of these schools, and courses with almost 300 additional titles were found to be offered in fewer than ten schools.[2] The grouping of courses for tabulation was under seven headings, namely, "industrial arts," "academic," "commercial," "household arts," "related subjects," "music, arts, and crafts," and "specials." Illustration of titles will be limited to the first two groups and to courses found in ten or more schools. The courses in *industrial arts* were: woodwork, machine shop, electrical shop, mechanical drawing, printing, auto mechanics, general shop, sheet metal, drafting, plumbing, home mechanics, general metalwork, manual training, and trade tryout. The *academic* courses were: English, civics, arithmetic, hygiene, science, mathematics, social science, current events, citizenship, "general continuation," geography, and reading.

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[1] The approximate figures in this paragraph and the one immediately preceding are based on a chart reproduced in "Vocational Education in the United States," *School Life*, XXIV (December, 1938), 67–78.

[2] Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *Part-Time Secondary Schools*, pp. 10–19. National Survey of Secondary Education, Monograph No. 3. United States Office of Education, Bulletin No. 17, 1932.

(2) *Heads of continuation schools.*—The National Survey reported that most principals of continuation schools do not give full time to this administrative assignment, as only about a third of these schools with Federal aid and fewer than a fourth without Federal aid have full-time principals. In a fifth of the schools with Federal aid and about a third of the schools without it high-school principals serve also as principals of continuation schools.[1]

(3) *Numbers of hours pupils are in school.*—The median number of hours pupils employed on full-time jobs were found to be in school each week in both Federally-aided and non-Federally-aided continuation schools was 4. The median was much larger for unemployed pupils, being 20 hours in Federally-aided schools and 16 hours in non-Federally-aided schools.[2]

(4) *The pupils in continuation schools.*—The median ages of boys and girls, respectively, in continuation schools, were found to be 17.7 and 17.0 years. The interquartile ranges for the two sexes were, respectively, from 16.7 to 19.0 years and from 16.2 to 17.9 years. Small proportions were 15 years of age and younger.[3] Reports on the highest grade completed in the full-time schools gave the largest proportion of pupils for Grade VIII (36.7 per cent). Next largest proportions were for Grade IX (26.9 per cent) and Grade X (15.3 per cent). According to the evidence of the Survey, almost nine tenths of the pupils were classifiable at the high-school level and more than half at the senior-high-school level. The majority of fathers of the pupils were engaged in occupations classified as "skilled owners and trades" (31.5 per cent), "semiskilled owners and trades" (36.6 per cent), and common labor (11.0 per cent); only small percentages of fathers were classifiable as in professional or semiprofessional occupations.[4] Reasons most often given by boys for leaving full-time day school were "necessary to help support family," "lack of interest in schoolwork," and "desire to be earning money for self." To these reasons the girls added, as one of the most frequent, "necessary to help with work at home."[5]

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[1] *Ibid.*, p. 20.

[2] *Ibid.*, p. 21.

[3] *Ibid.*, p. 28.

[4] *Ibid.*, p. 30.

[5] *Ibid.*, p. 33.

B. **Evening schools.** (1) *The offering.*—The list of courses found in 439 evening schools represented in the National Survey of Secondary Education extends through almost seven printed pages and includes 387 titles,[1] although the report admits some overlapping of titles. The list offered in no less than fifteen of the schools contains 87 titles distributed to groupings identical with those reported for continuation schools, except that "other subjects" replaces the category, "specials." Courses in these groups offered in more than 10 per cent of all the schools are:

Academic—chemistry, civics, economics, English, French, German, United States history, Latin, algebra, plane geometry, trigonometry, physics, public speaking, and Spanish.

Commercial—bookkeeping, business English, commercial arithmetic, commercial law, machine calculating, salesmanship, shorthand, typing.

Industrial arts—auto mechanics, architectural drafting, electricity, machine shop, mechanical drawing, printing, sheet metal, welding, and woodwork.

Household arts—clothing construction, cooking, home nursing and/or first aid, and millinery.

Music, arts, and crafts—orchestra or band, "art courses," "arts and crafts," commercial art, and dramatic art.

Related subjects—blueprint reading, related drafting, and related mathematics.

Other subjects—Americanization, English for foreigners, naturalization, and physical training.

Among rather specialized names of courses, listed for one or a few evening schools only, which indicate the extreme diversification of the offering are the following: European geography, Bohemian, Esperanto, insurance law, parliamentary law, negotiable instruments, bird study, meteorology and navigation, insurance salesmanship, trust functions, upholstery, concrete-form construction, body design, monotype, shoe repair, cake decoration, rabbit management, cosmetology, janitor training, marksmanship, papermaking, petroleum technology, and watch repairing.

As in the investigation of continuation schools, the National Survey in the study of evening schools distinguished between Federally-aided and non-Federally-aided institutions. Reference to schools as *Federally-aided* does not signify that all portions of the program were thus aided.

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[1] *Ibid.*, pp. 49–55.

The groups of subjects which shared in Federal assistance in the Federally-aided schools were chiefly industrial arts, household arts, and related subjects, which was in harmony with Federal policy. The groups having few or no subjects sharing in assistance were academic, commercial, music, arts and crafts, and other subjects. The distribution of aid under the George-Deen Act of 1936, which provides for aid for vocational training in the "distributive occupations," has undoubtedly brought about a change in the proportion of schools offering commercial subjects for which allowances of Federal aid are made.

What has just been reported concerning the offering and Federal aid is an indirect way of indicating that these evening schools—at least many of them—are not maintained only to provide vocational training, although most of them emphasize it. Some, indeed, offer nothing more than academic subjects and largely stress preparation for college.

(2) *Housing and administrative heads of evening schools.*—Evening schools are almost always housed in the regular high-school building.[1] In approximately two fifths of the schools the high-school principal is also administrative head of the evening school. In another fifth of the evening schools teachers serve as heads. Other functionaries sometimes administering these schools are, in the order of declining frequency, principals of other (usually elementary) schools, assistant principals, and department heads.

(3) *Students in evening schools.*—Typical ages of students in evening schools justifies referring to them as "men and women" rather than as "boys and girls." The National Survey found the median ages of a representative group of students to be 24.0 years for men and 22.1 years for women.[2] Using five-year groupings of ages—10–14, 15–19, 20–24, 25–29, etc.—the largest proportion of students was found in the 20–24 group (32.7 per cent), and the next largest proportions were in the 15–19 group (25.5 per cent) and the 25–29 (18.6 per cent) group. Few were in the 10–14 group (0.2 per cent). The proportions in the higher-age groups were as follows: 30–34, 10.8 per cent; 35–39, 6.4 per cent; 40–44, 3.2 per cent; and as many as 2.6 per cent were in the "45 and over" group. An appropriate generalization is that, although a considerable proportion of the students are youths, the great majority are young adults.[3]

While most students in evening schools—more than four fifths of those represented in the project of the National Survey of Secondary Education[4]—are American-born, the fathers of large proportions are foreign-born. In the National Survey project more than half had foreign-born fathers.

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[1] *Ibid.*, p. 63. [2] *Ibid.*, p. 71. [3] *Ibid.*, p. 73. [4] *Ibid.*, p. 72.

The socio-economic origins of these students is indicated in the following quotation from the report of the Survey: [1]

> The occupations engaged in most frequently by the fathers of these evening-school pupils are, in order of frequency, (1) the semiskilled owners and proprietors, (2) the machine and related trades, and (3) manufacturing, mechanical, and production occupations. These three types include 32.7 per cent, or about a third, of the fathers. The remainder are well scattered, with a preponderance in the skilled, semiskilled, and unskilled occupations. In this respect the distribution differs markedly from that of fathers of high-school pupils, where a much greater proportion were found to be in the professional and semiprofessional groups. Comparisons not reported here show that the evening school is much more truly the school of the common people than is the regular high school.

The last evidence to be cited concerning the students enrolled concerns their educational status as measured by the highest grade attained at the time of leaving the full-time school. The median and interquartile ranges are the same for men and women. The medians are Grade X, and the first and third quartiles are Grade VIII and Grade XII, respectively. The quartile measures signify that about a fourth of the evening-school students had never attended full-time high school and that, on the other hand, about the same proportion were high-school graduates.

(4) *The evening school and adult education.*—Consideration of the evening school has been introduced chiefly from the standpoint of its meaning for vocational education, but it is clear that the institution has significance likewise in part-time general education. In vital respects, also, it may be regarded as the backbone of a program of adult education, as is seen in the ages of its students and, to some extent, in the educational status of the students as measured by the highest grade attained in full-time schooling. A more nearly adequate program of adult education would doubtless shift the distribution of students by ages so that larger proportions than have here been reported would be in the age groups 30–34, 35–39, 40–44, and 45 and over. To draw these larger proportions, the offering would probably need expansion in several directions, including less formalized recreational activities and provisions of the forum type concerned with civic, social, and economic problems. In communities with junior colleges which have

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[1] *Ibid.*, p. 75.

teachers more extendedly equipped in scholarly ways, the formal offering for adults who are high-school graduates may well include credit or noncredit courses pitched at the collegiate level.

The vocational program in smaller secondary schools. Because most smaller high schools are found in smaller and rural communities, the first thought of those who contemplate a program of vocational education for such high schools is quite logically of agriculture and home economics. It goes without saying that in most such communities farming and homemaking are the occupations of two numerically prominent groups.

The more difficult problem is how, in smaller schools, to give any curriculum recognition to two other groups which are numerically less prominent, but which are nevertheless of considerable importance, at least when one considers the shift of the rural population to urban communities, namely, the industrial and the commercial occupations. Not many small schools can justify giving specialized vocational instruction in either field, but it is often feasible to give one or more courses in industrial arts or commercial work for purposes of general education. A bulletin of the Federal authority entitled *Trade Preparatory Training for Small Cities and Rural Communities* [1] points out that, although industrial-arts courses are not intended to give vocational training, many boys have nevertheless received their start in trade work of this kind. With a teacher of the right type, not too much hampered by school programs and administrative policies, it is sometimes possible with such courses to meet the individual needs of a few pupils who wish to enter trade work.[2] The bulletin indicates that "work of this type cannot be expected to qualify for Federal aid." Concerning the way in which the end is to be accomplished, it has the following to say: [3]

> To make specific plans for giving definite trade training as a part of an industrial-arts course and then secure the pupils will be very difficult. It is probable that this work can be best done only on an "opportunity" basis; that is, by first finding the pupil who has developed to the point where trade training is needed and then utilizing the facilities of the school to meet his special needs. This does not mean that a fixed course can be laid out and several pupils selected to follow it, but only that special provisions for intensive work may be provided for the few whose needs may best be met in that way.

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[1] United States Office of Education, Vocational Education Bulletin No. 157, Trade and Industrial Series No. 45 (1931).

[2] *Ibid.*, p. 75.

[3] *Ibid.*, p. 76.

One can conceive a somewhat analogous situation for schools that find it possible and desirable to make available a small offering in commercial education chiefly suitable as general education—and the conviction grows that this much of business education is essential in all schools. Even the smallest schools can make courses in industrial arts and commercial education available to individual pupils through arrangements for correspondence study.

It remains to consider the practicability of the part-time co-operative plan in smaller communities. A number of schools in such communities have instituted co-operative provisions, and the exposition of one such plan will be drawn upon illustratively.[1] The development, referred to as an experiment, was carried on in the Flathead County High School in Kalispell, a city of about 6000 in northwestern Montana. It was reported to have three objectives: (1) to give vocational training, (2) to provide vocational guidance, and (3) to develop better school attitudes. Ninety different boys in the school took the co-operative work during a period of three years. They attended school a half day and were at work in some chosen occupation the other half day. Each took two of three subjects in school and received credit for the "downtown work." The work in the school was related "as closely as possible" to the work on the job. A total of 18 vocations were represented: 29 boys engaged in automobile mechanics; 6, in automobile service; 6, in electricity; 4, in radio; 3, in sheet-metal work; 2, in photography; 2, in cabinet work; 2, in shoe repair; 2, in drugstore work; 2, in printing; 2, in bookkeeping; and 1 each in plumbing, greenhouse culture, tailoring, bakery, creamery, newspaper reporting, and farming. There were 32 salesmen, 8 of whom worked in grocery stores, 8 in clothing stores, 3 as automobile salesmen, 2 in shoestores, and 2 in hardware stores. An excess in the total of employments over the number of different boys is explained by the shift of some boys from one occupation to another. Some guidance value may be inferred from these shifts.

More than four fifths of the boys were employed for pay after school hours and on Saturdays. It was the co-ordinator's opinion that these boys "must have received some fairly definite and effective vocational training or they would not have been hired for after-school employment." He reported that a fourth of all boys were employed in full-time work and that some of those trained for full-time employment were unable, on account of economic conditions, to secure work.

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[1] "Co-operative Industrial Training in a Small Community," *School Review*, XL (January, 1932), 13–14.

The reader will probably agree that the most notable feature of the development of the co-operative program in this community of moderate size is the diversity of occupations represented, a diversity which spreads not only to many different industrial occupations but also to a variety of commercial employments. The flexibility of the plan suggests that the arrangements could readily be expanded to serve the needs of girls as well as boys and that some adaptation is practicable even in much smaller communities. Certainly, from the standpoint of youth, the need is just as great in small as in large communities.

At least two serious hazards must be guarded against in these plans in both smaller and larger communities. One of these is the danger of exploitation of youth in the interests of the employer. Desirable features tending to offset this danger would include insistence on minimum rates of pay, control of hours and conditions of employment, and courage on the part of the co-ordinator. Another danger is that the employer will use the device for displacing more highly paid adult workers, which he may be even more tempted to do under arrangements for pay to co-operative students than when they receive no pay.

Advisory committees on vocational education. Dangers like those just mentioned are one reason for the frequent advocacy and appointment of advisory committees on vocational education. However, such committees can be and often are useful as sources of positive and not merely negative recommendations concerning the policies and conduct of vocational education. These committees are usually appointed by the boards of education and are made up of representative employers, the workers themselves, and—just as desirable but not as often included—discerning public-spirited citizens who are neither employers nor employees in the industrial or commercial fields.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Which of the six problems of vocational education considered in the first section of the chapter are the most important?
2. What important problems of vocational education were not considered in the chapter?
3. Look up analyses of Federal Census data other than Bingham's, quoted in this chapter, to determine occupational trends. Compare the trends and conclusions.
4. Plan and make for some state or city, on the bases of Census data, an investigation similar to that made by Bingham for the country as a whole.

5. Why, in a democratic society, should not the occupations which individuals enter be decided for them?
6. Which is the more difficult problem, planning a program of vocational education for boys or planning one for girls? State the reasons for your opinion.
7. For some senior high school or four-year high school of your acquaintance make an occupational follow-up study of graduates and nongraduates to ascertain any possible significance for the program of vocational education in that school.
8. Make a study of the intelligence of pupils in different curriculums for some individual school or system analogous to that reported in the monograph by Kefauver, Noll, and Drake entitled *The Horizontal Organization of Secondary Education.* (See page 94.)
9. What are the trends of employment in your state in respect to the ages of entering employment?
10. Analyze the offering in some vocational, senior, or four-year high school from the standpoint of provision for the three phases of vocational education discussed in this chapter.
11. Consider how the policy of providing a generalized type of vocational education in the schools might affect the attitude of labor as expressed in Appendix A (pp. 241–289) of *Vocational Education* by John Dale Russell and Associates.
12. Analyze the program of vocational education in some city or state school system to ascertain the degree to which it has been administratively separated from the program of general education.
13. Analyze the continuation-school or evening-school offering in some school or system to ascertain the extent to which it is vocational, college-preparatory, or general.
14. Outline a program of vocational education for some high school or city school system, utilizing all essential evidence procurable.

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Chapter IV

Administering the Health Program

MAJOR ASPECTS OF THE HEALTH PROGRAM

Development of the health program in secondary schools. Health as a major objective in education is a recent addition to American secondary schools. Europeans who came to America during the last century brought with them a keen interest in physical development and gymnastic activities characteristic of the countries from which they came. Many of these people, who later sent their children to the American public high school, sought to encourage the development of the types of physical education which they had known in their mother countries. Since Americans were not concerned with systems of gymnastics which had been evolved with the idea of developing fitness for military duties, as had most of the systems of physical education in European countries, they were influenced only slightly by the foreign ideas which many sought to have incorporated in the program of instruction in the American secondary schools. The greatest borrowing in modern programs appears to have been made from the types of play and recreation found in the secondary schools of England. This borrowing resulted rather from a seepage of extracurriculum practices than as a direct attempt of educators in one country to adopt the program of another country.

Major aspects of the health program. It is generally recognized that the status of physical and health education is still far from what it should be in American secondary schools, although progress has been rapid in recent years. In the discussion which follows, consideration is given to the major aspects of the whole problem: (1) the significance of the health program to pupils of high-school age, (2) the influence of social and economic changes on physical and health education, (3) the objectives of physical and health education, (4) the program of physical education, (5) the program of intramural sports, (6) the program of interscholastic athletics, and (7) the program of health.

As may be anticipated from this outline of major aspects, the treatment in this chapter does not adhere strictly to the working concept of administration (as dealing only with the organizational and managerial aspects of direction of schools) accepted in Chapter I. In some measure it extends into the areas of curriculum-making and supervision. Explanation of the extension is the practical difficulty of effecting such a separation in dealing with the problems in this special field and at the same time affording anything like adequate administrative guidance in the field.

SIGNIFICANCE OF THE HEALTH PROGRAM FOR PUPILS OF SECONDARY-SCHOOL AGE

Meaning of "adolescence." Since the great majority of pupils enrolled in secondary schools are in the period of development known as *adolescence*, it is important to administrative officers and teachers that the meaning and significance of *adolescence* be fully understood as a basis for the health program. The term *adolescence* is not infrequently erroneously conceived. Some persons regard the coming of adolescence with dread. They feel that the individual who approaches adolescence is about to experience some sudden phenomenon which threatens serious consequences. Others regard adolescence merely as an experience which comes to every normal individual who grows up. As a matter of fact, the transition from childhood to adolescence in the case of most persons is so gradual that they scarcely note the changes. In some cases, however, changes in the voice, rate of physical growth, emotional attitudes, social interests, and the like may occur so rapidly as to cause apprehension and considerable maladjustment to the individual concerned. The maladjustment is more frequently caused by lack of understanding and skill in management on the part of those responsible for the welfare of the individual than by anything inherent in adolescence itself.

The appearance of puberty or the coming of adolescence can be accepted as evidence that an individual is growing up. Such knowledge should be received gladly by those concerned, for it tells them that nature is functioning properly for the individual in question. It signifies that the time has come for the youth gradually to put aside childhood ways and begin to acquire the ways of adults.

Significance of adolescence among primitive people. In primitive society the development of puberty in an individual is an event of tribal significance. It means that the time has come to begin intensive, formal training for the responsibilities of adult life. Ceremonial rites are invoked as a means of impressing youth with the importance of the physical change that has taken place. Severe tests are frequently imposed to determine the effectiveness of the incidental training received previously and the ability of the youth to bear adult responsibility. In a short interval of a week or two during the ceremonial period, the youth is often taught the lore of the adult tribesman and is transformed into an adult member of the tribe. The coming of adolescence is thus utilized by primitive man for the formal training of the youth in the knowledge and practices of adult affairs.

Civilized man has steadily lengthened the period of adolescence as a means of adequately training the young for the increasing complexities of adult life. It is doubtful, however, if civilized man makes as effective use of this period as did primitive man. The mere lengthening of the period of adolescence has little significance unless the training provided actually prepares the youth better to assume the responsibilities and to perform the duties which society demands. The revolt of youth frequently against the training imposed both by parents and the school may indicate that modern civilized man does not always sense the needs of youth as keenly as do the young people themselves.

Educational significance of adolescence. The period of adolescence, which is nature's time for changing the child into an adult, must be utilized by civilized man not only for acquainting the youth with the nature of adult responsibility, but also in aiding him to acquire the attitudes and ideals of civilized man and to form the habits of a functioning member of the complex social order of which he should become a worthy part. The nature of adolescence and its social significance thus becomes the guide to principals and teachers in developing a program of education for young people 12 to 18 years of age.

Since the period is one of transition from a state of childhood to adulthood, the mistake must not be made of continuing without modification the methods of childhood training. Challenges worthy of mature persons must be provided for adolescents. They must be given opportunities to test their growing powers in the mastery of more difficult tasks, in the exercise of greater initiative, and in the assumption of larger responsibilities than are ever permitted to children. It is not unrestrained freedom that adolescents need, but freedom to play the part of a near adult under wise supervision. Parents and educators who would serve adolescents best must counsel without dictating, protect without patronizing, and direct without appearing to do so. They must regard the home, the school, and the community as social laboratories in which the adolescents may acquire true insight into the nature of adult responsibilities.

Since the physiological changes of adolescence incident to the development of physical maturity are, in many respects, the most important of any that occur in an individual's progress from birth to manhood or womanhood, it is apparent that the intellectual, emotional, and moral development of the youth cannot be fully understood without a knowledge of the profound physical changes of adolescence. Any program of secondary education which does not give adequate emphasis to the physical development and health problems of adolescents invites serious criticism.

INFLUENCES OF SOCIAL AND ECONOMIC CHANGES ON PHYSICAL AND HEALTH EDUCATION

Status of physical and health education in Colonial and pioneer times. During the Colonial and pioneer periods in America, conditions of life were hard and there was little time for leisure among either the young or the old. The schools, therefore, reflected the life of hardship and sacrifice of the pioneer and sought to inculcate in the pupils the qualities of character that were possessed by the adults. There was little thought of leisure, and little time was given to it outside of worship on Sunday in the church. Even the worship took on the aspects of the pioneers' hard lives. With the exception of an annual gathering, such as a picnic on the closing day of school, where a few games and contests might be played, there was little need for any form of physical activity other than the outdoor life led by the pioneer.

Physical and health education in modern times. With the passing of the frontier, rapid changes in the life of the people began to take place. The growth of industry and the urbanization of the population brought new modes of living. The increase in per-capita wealth and the release of children from labor brought changes in school programs. It became necessary for schools to deal with problems created by leisure. Training for recreation had to be provided for, as well as training for work. It was inevitable that the secondary schools which served the pupil population of adolescent years should turn to physical and health education as an important aspect of training for recreation.

Influence of college athletics on modern physical and health education. The growth of college athletics has had considerable influence on the program of physical education in secondary schools. The tendency has been to introduce sports at the secondary-school level similar to the manner in which they are carried on in the colleges and to overemphasize interscholastic competition at the expense of the rest of the program. This tendency to overemphasize interscholastic athletics must be overcome, so that the time and energy of instructors in physical and health education may be directed to the needs of all pupils.

The modern school program in physical and health education should assume responsibility for the physical welfare of each pupil not only in physical activities but also in healthful living in school and community life. The report of the National Survey of Secondary Education shows that in outstanding secondary schools physical and health education is conducted for the benefit of all pupils rather than for the few who desire to compete in interschool athletics.[1]

In certain schools increasing emphasis is being placed on health service, health supervision, and health education. The tendency is to place the direction of health service and physical education under a single head. This tendency is revealed by the findings of the National Survey of Secondary Education, which states that the most notable achievement revealed in the investigation is the tendency to administer under a single head the health program and all the physical-education activities in the school.[2] It matters little whether the person in charge of these activities is designated as the director of health or the director of physical education. Even in schools where other departments and agencies assist in health work, it is usually left to the department of physical education and health to unify the total program.

OBJECTIVES OF PHYSICAL AND HEALTH EDUCATION

Scope of modern program of physical and health education. The general function of physical education and health work in the secondary school is to assist in providing a medium for the normal growth and natural development of each pupil. The aims are, in the main, those of education in general, for the total process of education must be considered in developing a program for any phase of schoolwork. The physical-education and health program should emphasize, perhaps to a greater extent than other fields, such phases of education as the physical, the mental, the social, and the recreational welfare of each pupil.

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[1] P. Roy Brammell, *Health Work and Physical Education*, p. 84. National Survey of Secondary Education, Monograph No. 28, 1933.

[2] *Ibid.*, p. 73.

Modern physical education emphasizes the fact that man is a biological unit.[1] In planning the secondary-school program of physical education and health, the entire process of education must be given careful consideration in order that the physical condition of the pupil may contribute to his academic progress. Since the health of the pupil is important, school equipment and supplies, playgrounds and recreational facilities, and conditions within the school must contribute to the general health of the pupil.

Instructors in physical and health education are concerned with the intellectual welfare of the secondary-school pupil in at least three ways. First, sufficient knowledge of healthful living must be imparted to the pupil to aid him in making the best possible adjustment to contemporary and to adult life. Second, in order to secure the maximum benefits from physical activities, pupils must be taught the fundamentals, rules, and strategy of sports. Third, it is the duty of physical educators to do everything possible to assist in providing a medium for the most efficient intellectual development of each boy and girl, not only in the physical-education program but also in the academic field.

It is now generally recognized that the social development of pupils is also an important phase of general education. Social relationships are basic to most phases of school life and eventually to adult life. Instructors in physical and health education must assume considerable responsibility for the social aims of the secondary school. Participation in the team games places pupils in situations where they are under social pressure and where emotional control may easily be lost. Frequent participation provides ample opportunity for pupils to learn to control emotions under strain. Also, experience has shown that the kind of pupil associations found in competitive activities is helpful in securing desirable adjustments to the school life in general. Pupils become better acquainted through the informal work in physical education, which usually helps in establishing a happy medium necessary to efficient educational work.

The secondary school must assume large responsibility for training pupils to make wholesome use of leisure time, especially in urban communities. Unemployment and shorter working hours have created a problem for society that only skillful planning during the formative years of our school population can successfully cope with in preparing young people to make satisfactory adjustments in adult life.

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[1] J. F. Williams and C. L. Brownell, *The Administration of Health and Physical Education*, p. 33. Philadelphia: W. B. Saunders Company, 1934.

Habits of regular participation should be emphasized and developed through the physical-education program in the secondary school. Usually, the proper habits will be established through the process of learning activities, especially if participation is satisfying. However, the range of native ability in performing physical activities is great and the development of skill and ability depends, to a large extent, on natural ability. Pupils possessing average native ability form regular habits of participation more readily than those less fortunate in native endowment. Considerable individual attention must be given to those in the lower ranges of ability in order to assure the proper habit formation and to prevent the fundamentals of activities from becoming drudgery—a condition that might eventually completely defeat the recreational objective and at the same time create problems in social and emotional adjustment for some pupils.

It is desirable to include in the secondary-school program of physical education activities that are fundamental to all physical development. In this group we find the more strenuous team sports that are not likely to be participated in by adults. Such team activities are essential in the secondary-school program for the proper physical development of the pupil. Also, the strenuous team sports are necessary in providing certain types of social relationships for pupils that are not found in the individual sports.

In developing skill and ability on the part of secondary-school pupils, it is necessary to teach the more strenuous team sports well enough so that pupils can participate with satisfaction. Otherwise, interest is likely to be lost in all forms of physical activity, with a resultant loss of the desirable social relationships and recreational aims. The amount of time given to the more strenuous team sports will depend somewhat on the training given in the elementary school. Secondary-school pupils who are well advanced in skill and ability when they enter high school should give less time to the strenuous team sports and more time to individual sports and activities that have carry-over value.

After pupils have developed sufficient fundamental skills and learned a number of activities well enough to derive a reasonable amount of satisfaction from participation, the emphasis should be placed largely on developing skill and ability in the individual sports and activities that are definitely recreational in nature. Usually, in the upper high-school years pupils are ready to make a wise choice of those activities in which they wish to continue participation. Individual attention to the development of skill in the activities selected by the pupil is extremely important in the upper high-school years, as a majority of secondary-school pupils will not be in a position to obtain further instruction after graduation. Every effort should therefore be made to develop sufficient skill and knowledge for satisfactory participation before pupils complete the secondary school.

THE PROGRAM IN PHYSICAL EDUCATION

Activities in physical education. The history of the growth of the program of physical education shows that little attention was given to physical activities during the early years of secondary education in America. As the need for physical activities grew, as has been stated above, parts of various foreign systems were introduced. These foreign systems were formal in nature and, even though somewhat modified to meet American needs, they were found to be unsuited to secondary-school pupils. Somewhat parallel to the foreign influences, there grew up an informal system of activities which placed emphasis on the interests of boys and girls. An example of the value of interests may be found in the present recreational aim, which attempts to create a lasting interest in some sports that will carry over into adult life. The formal systems of physical education were not conducive to carry-over values.

Many authorities hold that the purposes of physical education can best be realized through a free and natural type of program. The program of physical education which seems to be most successful in attaining the desired aims is made up basically of sports.

In some schools at the present time it is impossible to conduct a satisfactory natural program, due to lack of playground space and other facilities. However, improvements are rapidly being made in playing facilities, such as playing fields, gymnasiums, field houses, and equipment.

Segregation of boys and girls. Boys and girls at the secondary-school level should be segregated for a large part of their work in physical education, with participation arranged to suit their needs. Recently, emphasis has been given to coeducational activities in physical education wherein boys and girls participate together. This coeducational participation is desirable if not carried to an extreme. It assists, to a certain extent, in overcoming the self-consciousness exhibited by boys and girls of secondary-school age; yet the physical and psychological differences between boys and girls, combined with the differences in interests regarding sports, make it impossible to build a complete coeducational program on a lasting and solid basis, at least at the present time. Also, there is some evidence that the self-consciousness which exists between boys and girls of secondary-school age can be overcome too rapidly for their best interests. Where coeducational programs exist, it has been noted in some instances that boys and girls have tended to spend their time in talking together instead of in whole-hearted participation in games.

The task of arranging activities to suit the needs of secondary-school pupils should be left to experts in the field of physical education. These experts should give full consideration to the physical and psychological status of pupils. Usually, women instructors should determine the activities for the girls and men should assume the same responsibility for the boys. In many programs the activities for both boys and girls may be largely the same, although there may be considerable difference in the methods of conducting the activities.[1]

Classification of pupils. The classification of pupils should be given primary consideration in the physical-education program, as classification is basic to securing desirable results. Pupils should be first classified on the basis of medical examinations. The findings of such examinations usually reveal that at least three groups should be formed: (1) those who can participate in the regular program, (2) those who should have restricted activity, due to some type of physical disability, and (3) those who should not participate in any kind of physical work. The majority of the pupils should be able to participate in the regular program. Further classification may be found necessary within the groups, as some pupils need to be restricted from participating only in certain activities, while others need to be restricted in any activity attempted. Many restrictions will be only temporary, as in cases of recuperation from illness.

1. *Chronological age as a basis of classification.*—The age of the pupils should be considered in the organization of the program. Owing to the present methods of carrying on academic work, the making of age groups is usually automatically cared for. Grouping by ages should not be rigidly adhered to, however, as there is much overlapping of physical ability. For example, a boy of fourteen years of age may have more ability than one fifteen years of age, since it has been found that boys in the upper level in a given age group may be on a par in physical ability with the average in the age group above. Social maturity and

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[1] Ralph W. La Porte, *The Physical Education Curriculum*, p. 15. Publication sponsored by The College Physical Education Association. Los Angeles, California: The Caslon Printing Company, 1937.

age must also be considered. Usually, a good rule to follow is that pupils should be within a two-year age range in order to be sure that physical ability and social maturity are not too unequal.

2. *Skill or ability as a basis of classification.*—Classification of pupils according to their skill and ability for participation in activities should be made in order to equalize competition. Equalization of skill and ability in competition is essential to satisfactory participation. It is easier to conduct activities if pupils are placed in homogeneous groups where each pupil is taking part in activities suited to his needs and abilities. When pupils of nearly equal ability are placed in the same groups, there is less danger of injury, particularly in strenuous activities. However, it is usually difficult to make competitive groups entirely equal, since there are wide individual differences in pupil ability from one activity to another. For example, a pupil may be an outstanding tennis player, an average swimmer, and a poor handball player.[1] It is possible, however, to classify pupils within narrow ranges of ability.

A number of methods are available for classifying pupils according to age and ability. The means most frequently used in classifying pupils for competition are weight, height, age, grade, or a combination of these factors.

3. *Tests as a basis of classification.*—Various types of measurements have been introduced in recent years and have been used to some extent to achieve something like homogeneity of grouping. In schools where large groups must be classified and it is impossible for teachers to learn the ability of pupils through close observation, classification on the basis of tests is perhaps most desirable, inasmuch as the results of tests usually give a better indication of ability than static measurements such as weight, height, and age. In schools where the groups are small enough in numbers for the teachers to be familiar with the skill and ability of each pupil through close contact and observation in actual competition, successful results in classification may be obtained through teacher and pupil ratings. The latter method has the advantage over the testing method of saving the time which must be devoted to the laborious process of administering classification tests and preparing the records for use.

Individual pupil needs. The medical examination of pupils should be the first factor considered in establishing a program of physical education to meet the needs of individual pupils. The medical-examination records should be studied carefully, and assignment to activities within the restricted group should be made on an individual-pupil basis. Usually, pupils in restricted groups should participate in nonstrenuous activities with the competitive element less dominant.

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[1] Jackson R. Sharman, *Introduction to Physical Education*, p. 236. New York: A. S. Barnes and Company, 1934.

In the unrestricted group, the needs of pupils are determined somewhat by their ability. If the fundamental skills of many sports have been thoroughly taught in the elementary school, secondary-school pupils should be ready to participate in activities which require skill and co-ordination and are directly related to game situations. For this reason stress should be placed on actual competition in order that both individual performance and team play in games may be improved. Attention should be given to individual pupils in the fundamentals of sports in which they are deficient. If secondary-school pupils do not have the background necessary to develop the finer skills and techniques, due to a lack of proper elementary-school training (which may be due to poorly conducted work in a number of different schools from which the pupils come), it will be necessary to give fundamental training before the more highly organized work can be developed.[1] The status of the individual pupil must at all times be given primary consideration.

Size of classes. In modern physical education the size of a class should probably not exceed 60 pupils, and more satisfactory results might be secured if classes did not exceed 35. In teaching sports it is necessary to give some individual attention. If classes exceed 60 in number, individual work cannot be given so successfully as in smaller classes. At the present time, in many urban schools particularly, it is necessary to schedule large classes on account of lack of time, assistance, and facilities. Where large classes are necessary, the instructor tends to become merely an organizer and director instead of a teacher.

Time allotment. An opinion prevalent among authorities in the field favors five 1-hour or 50-to-60-minute periods of physical education for junior and senior high-school pupils each week, although there is no objective evidence to indicate the optimum time. In addition to the daily class periods, each boy and girl should have the opportunity to participate in after-school intramural sports two or three days each week.

The five 1-hour class periods a week have been recommended by various educational committees. The Report of the White House Conference Committee on Child Health states that "not less than one hour daily should be allowed in the school program for physical education in the elementary grades, in junior high schools, and in senior high schools."[1] A report of the Department of Superintendence also recommends five 1-hour periods weekly.[2] One of the objectives of the American Physical Education Association is a class period in physical education each day for each pupil.

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[1] Members of the Staff of the Department of Physical Education and Health of the Laboratory Schools of the University of Chicago, *Physical Education and Health of School Children*, p. 77. Chicago: Department of Education, University of Chicago, 1936.

Although there seems to be quite general agreement as to the desirability of the five 1-hour class periods weekly, the evidence shows that two periods a week are the common practice.[3] The fact that the provision of five 1-hour periods weekly ranks second in frequency of practice may indicate a trend toward the daily period in schools having adequate assistance and facilities.

Credit and marks in physical education. The modern physical-education program is recognized as a part of the total educational process, and as a part of education, credit and marks assume importance because of the close relationship of physical education to other educational experiences. As long as marks are assigned in other secondary-school subjects, the same requirements should be applied to physical education. Otherwise, both pupils and teachers are apt to develop a feeling that work in physical education is not important as compared with other fields. Also, in some states the law requires that credits be given in physical education as well as in other secondary-school subjects.[4]

The standards for awarding credits in physical education should be placed on a sound basis, using methods comparable to marking in other phases of secondary education.

Qualifications of teachers. It is apparent that one of the reasons for the slow development of health education and physical education in America has been the lack of properly trained physical-education teachers, combined with the fact that administrators have been prone to assign work in physical education to teachers in other fields. Also, the employment of men primarily for the coaching of interscholastic athletics, regardless of whether or not they are capable of teaching physical education, has militated against the development of good instruction in the field. With experience in interscholastic athletics and physical education, the emphasis has shifted from athletics to physical education and health services for all pupils.

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[1] *The School Health Program*, p. 211. Report of the Committee on the School Child, White House Conference on Child Health and Protection. New York: Century Company, 1932.

[2] *The Development of the High School Curriculum*, pp. 457–486. Sixth Yearbook of the Department of Superintendence of the National Education Association, 1928.

[3] P. Roy Brammell, *op. cit.*, pp. 75–77.

[4] J. F. Williams, C. L. Brownell, *op. cit.*, p. 287.

With the recent development and improvement of professional methods of training teachers of physical education there has come about a marked change for the better in teaching standards. Most professional schools of physical education advise that a teacher of physical education in a secondary school should have a minimum of four years of preparation beyond high school. The basic courses for specific training of physical-education teachers should include such science fields as biology, anatomy, chemistry, hygiene, physiology, psychology, and sociology.[1] Broad training of the type specified makes it possible for teachers of physical education also to teach academic subjects in small high schools which do not permit the degree of specialization generally found in large secondary schools. Professional courses, such as the organization and administration of physical education, principles and methods of teaching physical activities, psychology of physical education, tests and measurements in physical education, research in physical education, and actual participation in a majority of the activities and courses in education, plus required and elective courses in other fields, should complete the training of the instructor in physical education.

In many states, laws pertaining to the certification of teachers have helped to secure proper training for physical education. Usually the state laws and regulations specify a minimum amount of training considered essential to successful teaching.

Facilities for physical education. Proper facilities and equipment are fundamental to a successful program of physical education. The modern program in which sports and free activities are emphasized requires considerable indoor and outdoor space. At present, the physical-education program in many schools is badly handicapped by insufficient facilities and outdoor space. The lack of facilities and space seems to be more evident in urban centers, where it is sometimes impossible to secure play areas in the sections where the school buildings are located. In planning for the future, school authorities should select sites for buildings with sufficient outdoor space and should provide for indoor space on a plan compatible with an acceptable program of physical education.

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[1] Jackson R. Sharman, *op. cit.*, p. 294.

Authorities are not in agreement as to facilities required for physical education. Blair, in a study of physical-education facilities for the modern junior and senior high schools, states that "no other single subject in the secondary-school curriculum has been introduced so recently, has been subject to so much mandatory legislation, has cost so much for facilities and equipment in proportion to per-pupil use, or has such a variety of facilities considered essential for its proper development as has physical education."[1] The lack of agreement among authorities relative to standards in certain facilities of physical education is perhaps largely due to the relatively recent change in emphasis on the type of activities to be included in the physical-education program. Experience through experimentation is necessary, and the field has not yet had time to advance far enough for the crystallization of ideas pertaining to facilities. Although there is a lack of agreement with respect to certain phases, there is general agreement regarding the need for such fundamentals as play areas, softball fields, tennis courts, gymnasiums, handball and badminton courts, swimming pools, locker and shower rooms, and equipment, such as gymnasium apparatus, balls, bats, nets, and other supplies used in the various sports and activities.

The extent of outdoor space needed for physical-education activities will depend to a large extent on the number of pupils enrolled in the secondary school. Recommendations for play space for secondary schools has ranged from 10 acres to 20 acres. There seems to be rather general agreement that the minimum amount for the modern program should be 10 acres; and where it is possible to have 20 acres, future restrictions in regard to expanding programs would be obviated.

The types of playground activities that secondary schools generally encourage and for which they provide space facilities are discussed in Chapter XIII, "Buildings and Grounds." Small schools often provide very inadequate outdoor facilities for some of the activities listed, despite the fact that ground space in small communities can usually be secured at moderate cost. For the large schools, outdoor facilities are often as carefully planned as are indoor facilities. The figure on page 110 shows the plan that has been developed for the high school at Highland Park, Illinois, for outdoor recreation and athletic activities. The entire field contains 38 acres and provides facilities for football, baseball, soccer, tennis, track and field games, ice skating, hockey, and horseshoe

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[1] Herbert Blair, *Physical Educational Facilities for the Modern Junior and Senior High School*, p. 3. New York: A. S. Barnes and Company, 1938.

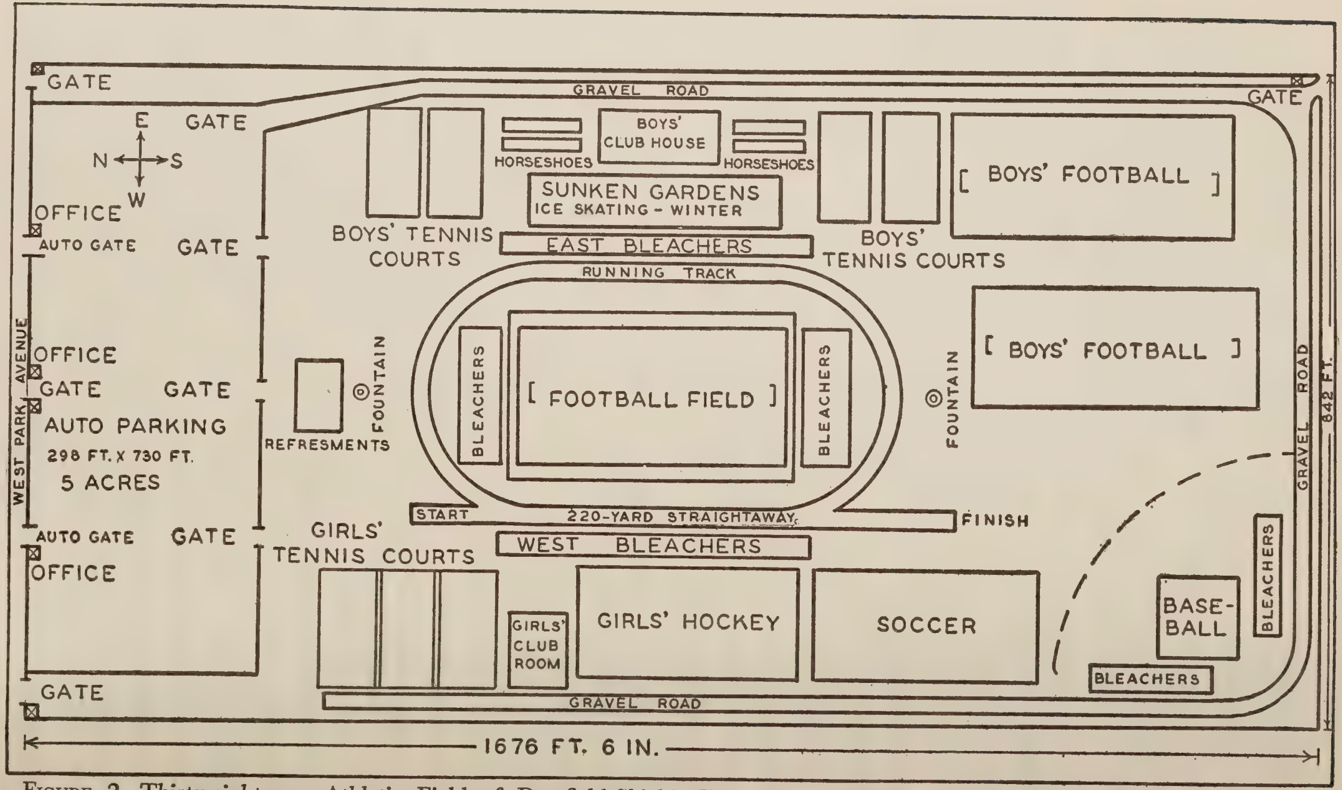

FIGURE 2. Thirty-eight-acre Athletic Field of Deerfield-Shields High School, Highland Park, Illinois (From a drawing by F. S. Wichman)

pitching. The football field is in the center, surrounded by four individual bleacher stands capable of seating 10,000. Two of the stands are portable and can be used for baseball or other activities.

Location and climatic conditions must be considered in providing indoor space. It is obvious that in a warm climate, where it is possible to conduct the program outdoors, there is not the same necessity for indoor space as in climates where the weather conditions are such as to require conducting the physical-education program indoors during the greater part of the year. The outdoor program is to be preferred to the indoor program. The standards for indoor space usually call for separate gymnasium floors for boys and for girls.[1] A number of small, auxiliary rooms are necessary for handball, badminton, and games that can be played in small space. The type of gymnasium erected will depend somewhat on the use to be made of it. First consideration should be given to the regular class work in physical education; then athletics, extracurriculum activities, and in some communities the use of the gymnasium as a community center should be considered. The size of the gymnasium floor has been determined in the past largely by the needs of basketball. Perhaps this fact has been fortunate, for basketball requires considerable space and a high ceiling. An authority on school buildings states that secondary-school gymnasium floors should be at least 40 feet by 60 feet.[2] These dimensions should be considered as the minimum, especially for the modern program in which free, informal activities are taught. If the gymnasium floor must be separated for use by boys and girls, the minimum dimensions should be 68 feet and 80 feet, and in schools with large classes a much larger floor space is desirable.

Safety. Precautions against injury should be taken in all phases of physical education. Although it appears impossible to eliminate accidents entirely in physical-education work any more than in other phases of human activity, it is possible to eliminate unnecessary hazards in order that the accident rate may be kept at a minimum. The following points should be considered for assuring the safety of pupils.[3]

1. Proper supervision of facilities and equipment
2. Direct safety instructions to pupils and student leaders

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[1] Although separate gymnasiums for boys and girls are greatly to be desired, small schools will usually find it necessary to get along with a single gymnasium.

[2] G. D. Strayer and N. L. Engelhardt, *Standards for High School Buildings*, p. 70. New York: Bureau of Publications, Teachers College, Columbia University, 1924.

[3] Mabel Lee, *The Conduct of Physical Education: Its Organization and Administration for Girls and Women*, pp. 251–252. Copyright, 1937, by A. S. Barnes and Company.

3. Full-time teachers of physical education
4. The use of students as squad leaders
5. Classification of students by age and ability
6. Proper inspection of equipment and apparatus at regular intervals
7. Athletic fields smooth and free from obstacles where injury might occur
8. All indoor surfaces provided with nonslip surfaces
9. Enforcement of safety rules in the natatorium
10. Satisfactory officiating for games in which rough play might result in injury to pupils
11. Sufficient lighting for dressing rooms, halls, and gymnasiums
12. Passageways and gymnasiums free of equipment, apparatus, and projections of any type
13. Require eyeglass protectors for students who must wear glasses during activity
14. A physical examination for all pupils in order to avoid pupil participation in activities beyond their physical capacity

The organization should be such that when an injury occurs prompt first-aid treatment can be administered.

THE PROGRAM OF INTRAMURAL SPORTS

Importance of the intramural program. The term *intramural athletics* is now generally accepted as meaning athletic competition between groups within a given school, as contrasted with interschool competition. The program should provide for all boys and girls enrolled in the secondary school. Not all secondary schools have as yet realized the importance of intramural programs. Brammell[1] found that the junior high schools had made more progress in developing such programs than any of the other reorganized secondary schools or the four-year high schools. Of 327 schools reported to have developed innovative practices in physical education, 93.3 per cent of the junior high schools had developed intramural programs, while only 63.7 per cent of the regular four-year high schools and 74.6 per cent of the other reorganized secondary schools had provided such programs.

Intramural director. In every secondary school there should be a regular teacher designated as the intramural director, who will be responsible for the intramural program. Usually the intramural director should be a member of the department of physical education, whose primary interest is the welfare of the average pupil. Coaches of interscholastic sports are apt to neglect the pupil most needing attention, and in the past coaches have been too much inclined to use the intramural program for purposes of developing material for interscholastic squads. There is no objection to boys in intramural athletics eventually taking part in interscholastic athletics, but the intramural program should not be used as a training device for interscholastics at the expense of pupils most needing athletics. In smaller schools it has sometimes proved satisfactory to have an academic teacher assume charge of intramurals in the absence of sufficient assistance in the department of physical education.

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[1] P. Roy Brammell, *Intramural and Interscholastic Athletics*, p. 11. National Survey of Secondary Education, Monograph No. 27, 1933.

Time for intramural athletics. After-school hours are generally utilized for intramural competition, although it may sometimes be desirable to provide participation at the noon hour, on Saturday mornings, and occasionally during regular physical-education class hours. Schedules should be arranged so that each boy and girl may participate in two or three after-school periods each week.

Attendance. Although physical education in the secondary school should be required as a part of the total educational program, it has been found expedient to place intramural athletics on an optional basis, as experience has shown that a large majority of boys and girls will elect to participate in some form of intramural competition if the program is conducted on a satisfactory basis.

Activities. The number and types of activities to be included in the intramural program will depend to a large extent on the number of pupils enrolled, the facilities, faculty assistance, pupil interests, and the location of the school. The director of intramural athletics should organize the program after careful consideration of factors that are likely to affect participation. A good rule to follow is to include in the after-school program the activities taught in the regular daily physical-education class period.

Data collected from 23 secondary schools in the vicinity of Chicago revealed a list of 31 different sports in which intramural competition was provided. The data indicate that the sports most frequently used for intramural purposes are handball, basketball, track, volleyball, tennis, hockey, baseball, and football. The number of contests provided for boys and girls in 15 sports in the 23 schools is shown in Table 12, page 114.

The seasonal activities in the two lists on pages 114 and 115 are recommended for the intramural program for boys[1] and for girls.[2]

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[1] J. F. Williams and C. L. Brownell, *op. cit.*, p. 410.
[2] Mabel Lee, *op. cit.*, p. 446.

TABLE 12

NUMBER OF INTRAMURAL CONTESTS IN 15 SPORTS FOR BOYS AND GIRLS IN 23 SECONDARY SCHOOLS[1]

SPORTS	NUMBER OF CONTESTS					
	For Boys			For Girls		
	Lowest school	Average for 23 schools	Highest school	Lowest school	Average for 23 schools	Highest school
Handball	40	344	1090	0	0	0
Basketball	7	137	544	7	40	100
Tennis	2	56	300	6	31	100
Soccer	10	71	165	3	10	15
Baseball	5	60	140	10	26	50
Boxing	1	34	124	0	0	0
Football	1	18	100	0	0	0
Volleyball	25	43	65	3	24	50
Golf	2	23	58	0	0	0
Track and Field	1	8	52	1	3	5
Gymnastics	3	12	20	1	3	4
Swimming	1	9	20	2	7	15
Wrestling	1	5	10	0	0	0
Cross-country Running	1	4	7	0	0	0
Hockey	0	0	0	3	18	32

SENIOR-HIGH-SCHOOL BOYS

Fall	*Winter*	*Spring*
Archery	Badminton	Archery
Cross-country Running	Basketball	Baseball
Touch Football	Bowling	Golf
Golf	Gymnastics	Pitching Horseshoes
Pitching Horseshoes	Handball	Softball
Softball	Ice Hockey	Swimming
Soccer	Ping-pong	Tennis
Speedball	Shuffleboard	Track
Tennis	Skating	Volleyball
Volleyball	Skiing	
	Swimming	
	Track	
	Volleyball	
	Water Polo	
	Wrestling	

For junior-high-school boys the same activities are recommended, with the exceptions that cross-country running should be eliminated from the fall list; badminton, bowling, and water polo from the winter list; and baseball from the spring list

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[1] W. C. Reavis, unpublished study, October, 1933.

Senior-High-School Girls

Fall	*Winter*	*Spring*
Badminton	Archery	Archery
Hockey	Badminton	Softball
Pitching Horseshoes	Basketball	Swimming and Lifesaving
Soccer	Ping-pong	Tennis
Speedball	Shuffleboard	Track and Field
Swimming	Swimming and Lifesaving	
Tennis	Volleyball	
Volleyball		

For junior-high-school girls the same activities are recommended, with the exceptions that badminton should be eliminated from the fall list and hockey, soccer, speedball, and volleyball should be modified in accordance with the ability of each particular group; archery and basketball should be eliminated from the list of winter activities and nine-court basketball and end ball should be added. The spring activities are practically the same, although it may be found desirable to add a few games of low organization for junior-high-school girls.

Financing the intramural athletic program. As intramural athletics are an integral part of the total program of physical education and health and are, therefore, an important phase of general education, the funds necessary for the operation of the intramural program should be budgeted in the same manner as for other educational items. There has been some tendency in the past to make the intramural program dependent on the gate receipts from interscholastic athletics. Such a practice should not be followed. If it is necessary to use gate receipts from interscholastic athletics for educational purposes, they should be absorbed by the general fund, since there is no reason why gate receipts should be spent for one educational feature more than for another.

Organization for participation. The usual bases employed for selecting teams for competition are by home rooms; grade in school; weight, height, age, or a combination of these factors; physical-education classes; physical-ability ratings by pupils and instructors; and indices of motor ability and physical ability. Local conditions will determine to a large extent the bases used. The bases used in the study[1] of the 23 schools referred to are shown in Table 13, page 116.

Scholastic eligibility. During the recent rapid growth of secondary-school programs in intramural athletics, a tendency has developed to

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[1] W. C. Reavis, *op. cit.*

TABLE 13

BASES USED BY 23 SECONDARY SCHOOLS IN SELECTING GROUPS FOR INTRAMURAL GAMES

BASES	NUMBER	PER CENT
Grades	14	60.9
Home rooms	13	56.5
Physical-education classes	11	47.8
Weight	6	26.1
Ability	2	8.7
Height	2	8.7
Physical condition	1	4.3
Shop teams	1	4.3

use the type of scholastic eligibility requirements in the intramural program that is applied in interscholastic athletics. Certainly the application of scholastic eligibility requirements for intramural athletics defeats the objective of "participation by all," when used to keep pupils out of intramural competitions.

Pupil leadership. In most schools where a large percentage of the pupils participate in intramural athletics, it has been found necessary for the director of the intramural program to organize and employ pupil managers to assist with such parts of the program as checking and caring for equipment, posting schedules, keeping a record of results of contests, scoring, officiating in games when necessary, and assisting generally with duties assigned by the director. Arrangements should be made to train such assistants for the duties they will be expected to perform.

Awards. Experience has shown that, if pupils overemphasize the importance of individual or even group awards, the best results cannot be obtained from the intramural program. Under certain circumstances, where stimulation and motivation are needed during various stages of the development of the intramural program, awards may be desirable, regardless of the emphasis placed on them. However, in the fully developed, satisfactory intramural program the pupils will place little emphasis on awards, for under desirable conditions they will participate for reasons other than the desire to earn an award.

THE PROGRAM OF INTERSCHOLASTIC ATHLETICS

Problems in interscholastic athletics. The findings of the National Survey of Secondary Education show that interscholastic athletics in selected secondary schools are approaching a high degree of standardization. The sports in which the pupils engage are well established, and the most successful practices in administration of these sports seem to have been identified. A number of problems in interscholastic athletics still exist in many schools, although it can be said that for virtually every school which is troubled with one of these problems another school can be found in which it is no longer troublesome. However, some serious problems persist, even in outstanding schools, which threaten the future of interscholastic athletics, among them being the limitation of participation to relatively few pupils, the tendency of the community to rate the school by its athletic success, the control of the conduct of spectators during contests, transportation of athletes and the conduct of pupils on trips, and some twenty-odd other problems of lesser importance.

Successful methods of dealing with these problems should be investigated and the reports should be made available to schools in general. Thus, through the pooling of experience in the organization and administration of interscholastic athletics, general improvement might be greatly accelerated.

In the senior high school there is a need for properly directed and properly conducted interscholastic athletics, although this need is not so great as the public, athletic coaches, and participants are likely to think, provided the physical-education program, and especially the intramural organization, is functioning satisfactorily. Too often in the past school facilities and faculty assistance have been insufficient for the proper physical-education program inclusive of interscholastic athletics, with the result that the intramural program rather than the interscholastic program has suffered. If, at any time, there must be a choice between the two, the interscholastic program should be reduced. However, there should be provision for carrying on the entire program without the necessity of selecting one at the expense of the other.

During the early growth of junior high schools, interscholastic athletics were introduced on the same plane as in the senior high school. It is easy to understand why this introduction of interscholastic athletics into the junior high school might occur so easily, since physical-education programs, and especially intramural athletics, were not sufficiently developed to care for the needs of junior-high-school boys. It is now generally agreed that interscholastic athletics should not be a part of the junior-high-school program. The physical and emotional immaturity of junior-high-school boys is the main reason why interscholastics are not desirable. Furthermore, if the proper intramural program is developed, there is neither place nor need for interscholastic athletics in the junior high school.

Control. School authorities should have full control of interscholastic athletics at all times. The athletic coaches should be responsible to the director of health and physical education, and the director should be responsible to the school principal.

Schedules. Schedules should be arranged so that there will be a minimum of interference with academic work. The North Central Association of Colleges and Secondary Schools recommends that contests be limited to one each week in each sport during the playing season. The games should be played on Friday after school or on Saturday. Long trips should not be tolerated unless they are absolutely necessary in order to secure equal competition.

Eligibility. Pupils unable to maintain a satisfactory academic standing should not be permitted to participate even in practice for interscholastics. Intramural programs are more satisfactory for such pupils, as the practice and contests are less time-consuming and less strenuous. The scholastic eligibility rules are usually determined by the individual state athletic associations and are, on the whole, satisfactory, provided the schools live up to the spirit of the rules and do not attempt to evade them.

Data collected in the National Survey of Secondary Education reveal the standards for participation in interscholastics required by 327 selected schools. The standards and the number of schools requiring each standard to be met by competing athletes are shown in Table 14, page 119.

Finances. Practically all public schools depend wholly or in part on gate receipts to finance the interscholastic program. Perhaps at the present time it is necessary to depend on gate receipts; yet, if interscholastic athletics are an integral part of education, they should not be dependent on the winning and losing of games. As long as gate receipts are used for educational purposes, they should be absorbed by the general educational fund, and a budget should be drawn, based on the yearly needs of athletics.

The findings of Brammell show that in approximately 10 per cent of the selected secondary schools studied in the National Survey of Secondary Education, interscholastic athletics are supported by the board of education. The other practices revealed in Table 15, page 119, indicate that entirely too much pupil and faculty effort is being expended in the support of the program of interscholastic athletics.

TABLE 14

NUMBER OF SCHOOLS HAVING CERTAIN STANDARDS OF SCHOLARSHIP WHICH PUPILS MUST MEET IN ORDER TO QUALIFY FOR ATHLETIC PARTICIPATION AND AWARDS [1]

STANDARD OF SCHOLARSHIP	NUMBER OF SCHOOLS
Passing to date in three subjects	230
Passing preceding term in three subjects	203
Passing to date in four subjects	37
Passing in all subjects in which enrolled	21
Passing preceding term in four subjects	19
Satisfactory conduct	16
State high-school athletic association rules	12
Carry four subjects	11
Attendance and merit records	6
Below in not more than one subject	5
Good hygienic habits	5

Championships. In recent years there has developed a saner attitude toward championships than formerly existed. Educators have long realized that state and national tournaments to determine championship teams contribute little to real education. At the present time, basketball tournaments to determine state championships are sponsored by high-school athletic associations in some of the states. However, there appears to be a growing sentiment among high-school administrators against state tournaments.[2]

TABLE 15

FREQUENCY WITH WHICH CERTAIN SOURCES OF INCOME ARE DESIGNATED AS THE MAIN SOURCE OF SUPPORT FOR INTERSCHOLASTIC ATHLETICS [3]

SOURCE OF INCOME	FREQUENCY
Board of education	32
Ticket sales	276
Pool of funds derived from all extracurriculum activities	65
Donations	5
Athletic association membership fees	14
Student-council, student-union, and student-body fees	12
Plays, entertainments, and special efforts	16
General organization dues	2
Assessing home rooms	1
Department of physical education	1
Profits from magazine subscriptions	1
Candy sales	1

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[1] P. Roy Brammell, *Intramural and Interscholastic Athletics*, p. 70. National Survey of Secondary Education, Monograph No. 27, 1933.

[2] P. Roy Brammell, *ibid.*, p. 82.

[3] *Ibid.*, pp. 62–65.

THE PROGRAM OF HEALTH

Stages in the development of the health program. Although the health objective has been mentioned almost since the beginning of physical education in American secondary schools, health work as such is a relatively recent innovation. Three clearly defined stages are evident in the development of public-school health work. The first stage was the medical inspection of pupils in an effort to control communicable diseases. The beginning of medical inspection in schools was stimulated largely by local health boards. It represented merely an extension of their community work into the schools. Inspection to assist in the control of communicable diseases had its inception in the larger systems, from which the movement spread rapidly to smaller communities. The second stage of health work was an expansion of the scope of the work to include examinations for physical defects of the eyes, ears, nose, throat, heart, teeth, and nutrition. In the third stage, the aim of health work was broadened to include the prevention of physical defects. In recent years growing emphasis has been placed on health education and the health habits of school children.

Administration of the health program. The program of health in the secondary school, like other phases of education, should be under the control of school authorities. Physical inspection began in the public schools as an extension of the work of boards of health; but in the majority of the secondary schools in America where health work is carried on, it is now under the control of boards of education. Experience has shown that physicians and boards of health tend to emphasize the prevention of disease to the exclusion of the educational phases of health. They usually have not stressed the larger educational relationships pertinent to the promotion of the proper growth and development of pupils.

Health work in the small secondary school should be under the director of health and physical education, who should be directly responsible to the secondary-school principal. The director's training should include a thorough grounding in both physical education and health work. Directors who lack training and experience in either physical or health education usually cannot administer the program successfully, since they generally fail to see the problems in the field in which they lack training. In the large high schools, where it is possible to employ school physicians and nurses, health service and supervision may function as a distinct unit within the program. The danger is that the functionaries are likely to have so many pupils to care for that practically all their time is consumed in examinations and follow-up. Little time is available in many schools for the direction or teaching of health courses.

The program of health in the secondary school should be definitely educative in nature. Even health service can be justified in the school only on the grounds that it contributes to the educative process. Expensive instructional programs are wasted if the health of pupils is such that they cannot take full advantage of the educational opportunities provided. In regard to the educational nature of the school health program, the Committee on Growth and Development of the White House Conference on Child Health and Protection states that "we cannot force correction of defects or more hygienic standards of living on children, parents, or teachers. The positive constructive force in a health program lies in the health instruction." [1]

Health service and supervision. The functions of a school health service are (1) to assist in teaching pupils the fundamentals of healthful living; (2) to aid in the control of communicable diseases; (3) to supply information on the status of each child, so that the school program may be adapted to individual needs; and (4) to advise parents concerning the physical defects of pupils which should receive medical attention.[2]

The scope of the school health service has expanded rapidly within the past decade. In fact, many physicians and school administrators believe that in some situations it has gone beyond the limits within which satisfactory service may be rendered. It is extremely important that teachers, parents, and school physicians recognize clearly the functions and limitations of a school health service. The greatest emphasis must be placed not on correction, wherein practically all the time and the energy of health-service employees are often concentrated, but rather on prevention.[3]

Health examination. It is usually considered desirable for each pupil to have an annual physical examination made by a physician. The means of obtaining a health examination for all pupils will obviously vary in different schools. In the larger high schools, where it is possible to have the services of full-time physicians, a more complete examination can be secured than in schools where only part-time physicians are available. Also, there are many schools where the services of a nurse only are available, and other schools have the assistance of neither nurses nor physicians. In some small schools, where it is impossible to secure even the part-time services of a school physician, plans have been worked out whereby the physicians in the county are organized to make an annual health examination.

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[1] *The School Health Program, op. cit.*, p. 168.

[2] *Growth and Development of the Child*, pp. 293–296. Report of the Committee on Growth and Development, White House Conference on Child Health and Protection. New York: Century Company, 1932.

[3] Jackson R. Sharman, *op. cit.*, p. 89.

The health examination should include as a minimum an appraisal of the more common physical conditions pertaining to height, weight, eyes, ears, nose, nutrition, heart, and signs of infection. Where it is possible to have a complete examination, physicians have recommended that attention be given to glands, skin, lungs, blood, abdomen, bones, muscles, posture, feet, and the stage of pubertal development.[1]

The results of physical examinations should be carefully recorded, so that they may be made readily available for use in determining individual pupil programs. Parents should be present during the health examination, if possible, and a copy of the findings should be sent to the parents, with recommendations that the family physician be consulted whenever the school physician thinks it advisable. The follow-up to secure the correction of remediable defects will involve the school nurse as well as the physician. Visits to the homes of pupils by the school nurse are often necessary to secure the co-operation of parents.

Administrators and teachers should make use of the records of the physical examination in pupil guidance. Lack of intelligent planning of pupil programs wherein health liabilities are concerned is likely to hinder progress and in some cases to bring disastrous results to individuals. The White House Conference Committee on Growth and Development states that "there are several aspects of secondary school life which for some students may become health liabilities. Students undertake work beyond their capacity and are injured by worry and failure. Athletics, involving competition, may constitute a menace to health. Social pressure may constitute a real danger to some students. Socialized class work and extracurriculum activities, added to heavy home-study load, church, family, and social activities, and part-time employment, create a burden too great for many students." [2] The health status of a pupil should in all cases form the basis of assignments to schoolwork.

Prevention and control of communicable diseases. The measures commonly used to control the spread of communicable diseases include the exclusion from school of any pupils showing signs of illness, readmittance to school after absence only on examination by the school physician, and the immunization of pupils against certain diseases.[1]

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[1] J. F. Williams and C. L. Brownell, *op. cit.*, pp. 165–166.
[2] *The School Health Program*, *op. cit.*, p. 163.

In a majority of the schools at the present time the detection of illnesses rests with the classroom teacher. Even in schools with large staffs of physicians and nurses, dependence must be placed on the teacher to detect any departure from the normal in pupils, since it is obviously impossible for physicians and nurses to examine daily all pupils in school for signs of illness. When the classroom teacher notes any signs of illness in a pupil, the individual is immediately sent to the physician or nurse for examination.

Pupils who have been absent from school on account of illness should not be readmitted until they have been examined by the school physician or nurse. If there is no school physician, the pupil should be requested to bring a written statement from the family physician.

Measures for immunization are essential to the prevention and control of communicable diseases in schools. Such diseases as smallpox, diphtheria, and typhoid fever are readily controllable by these measures. However, in some communities it is not possible to require certain measures for immunization because of inability to secure the necessary co-operation of parents. The school health service should rarely include treatment for immunity. This must be left to the family physician and to clinics and dispensaries.

First aid. Every school, regardless of size of staff, should have provisions for administering first aid. Where physicians and nurses are available, the problem is simplified. In small schools, which may not be able to secure the services of nurses and physicians, there should be designated for this duty some person who has knowledge of first-aid procedures.

Dental service. Dental inspection should be made at the time of the annual physical examination. If dentists are not available for school service, pupils should be urged to have their teeth examined by their family dentists at least annually and preferably once every six months. Physicians and nurses should urge the correction of bad mouth conditions, along with the follow-up work for other physical defects.

Hygiene of the school plant. Supervision of the school plant should include such items as heating, lighting, ventilation, cleaning, drinking facilities, washing facilities, toilets and rest rooms, lunchrooms, and any other phases of operation of the school plant which have a bearing on the health of the school population.

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[1] Jackson R. Sharman, *op. cit.*, p. 92.

Health instruction. The responsibility for the proper health instruction of secondary-school pupils should be distributed throughout the entire school. Administrators, classroom teachers, instructors in physical education, physicians, and nurses must contribute to the total process of health education.

Organization. Although a number of different departments within the secondary school may assume some responsibility in teaching health, it is necessary for someone to act as health co-ordinator if the work is to be comprehensive and systematic and not haphazard. In most secondary schools the responsibility for the health-instruction program should rest with the department of health and physical education. If the school is large enough to employ a director of health and physical education, the responsibility will be his, although the duty as health co-ordinator may be delegated to a qualified staff member.

A number of plans have been used in arranging for the teaching of health. One plan commonly used is to have the instructor in physical education spend one or two periods a week throughout a year in health instruction. The plan has not proved entirely satisfactory, inasmuch as the health instruction must usually be offered in the gymnasium, which generally does not provide the proper setting and atmosphere for teaching health.

A better plan is to offer a course on health [1] independent of physical education. The length of the course and its content will depend on the health instruction received by the pupils in the elementary school and in other departments in the high school. The science courses in the secondary school may be organized to contribute greatly to the health knowledge of pupils. It should be the responsibility of the health co-ordinator to determine the status of health knowledge of pupils and to arrange the course in health accordingly.

Regardless of the plan used in providing time for health instruction, the health materials should be organized in units. Changing conditions may require the frequent revision of the materials of health instruction, and the unit plan readily lends itself to such revision.

In addition to the health instruction offered in the science courses and the regular health courses, secondary-school pupils should profit from situations bearing on health in other phases of the school program. There are many places in the physical-activity program where health may be emphasized. Physicians and nurses should also use the examination periods as a time for individual instruction. The teachers of other subjects may have the opportunity of supplementing and emphasizing health instruction, if they feel a responsibility for doing so.

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[1] See *Physical Education and Health of School Children*, *op. cit.*, pp. 143–151.

APPRAISAL OF THE HEALTH AND PHYSICAL-EDUCATION PROGRAM

Need for appraising results. As the health and physical-education program in the secondary school requires a considerable expenditure of funds, it is essential that results be appraised from time to time. Because of the many ramifications of the work, it is extremely difficult for administrators to obtain an accurate appraisal of the results, since many of the outcomes are intangible and are difficult to measure objectively. Furthermore, the many changes and rapid developments of the work in recent years have tended to make school authorities uncertain regarding procedures and methods of teaching.

Tests and measurements in physical education. Numerous tests and measurements have been developed in the field of physical education. Tests to measure physical ability, physical condition, strength, motor ability, fundamentals of activities, physical indices, and various other phases of the work have been reported.[1] However, the majority of these tests and measurements are of little use to the administrator in appraising the program.

Tests and measurements in health. In the health-education program, health knowledge can be measured on a basis comparable with other subjects. By objective tests it may be determined how well the health instruction is being carried out. In the health-service department many of the procedures in physical examinations are objective, and appraisal can be made in some degree through comparisons with previous years and with other schools; yet it is difficult to measure directly the extent to which good results are obtained from the services.

Other methods of appraisal. Many of the desired outcomes of health and physical education are not susceptible to evaluation by the tests and measurements available to date. On the whole they are less tangible than the outcomes covered by tests and measurements so far devised and applied. For such outcomes less objective methods of appraisal must be used. The following list contains a number of such procedures which may be recommended for development and use, but persons applying them should keep in mind their varying dependence on objectivity and subjectivity.

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[1] J. F. Bovard and F. W. Cozens, *Tests and Measurements in Physical Education.* Philadelphia: W. B. Saunders Company, 1930.

1. Minimum necessity for disciplinary measures
2. Satisfactory pupil adjustment in physical education
3. Satisfactory pupil adjustment in all phases of school life, including the academic work
4. Satisfactory school spirit in general
5. A high percentage of participation in optional physical-education work, as in the intramural program
6. Satisfactory social relationships among pupils
7. Evidence of emotional control on the part of pupils
8. Evidence of good sportsmanship
9. Minimum of time lost on account of illness
10. Participation in a variety of recreational activities
11. Evidence of high standards of conduct in personal and group life
12. Evidence that health knowledge is used for the good of the individual and the group
13. Evidence of sufficient skill and ability in two or more sports to the end that continued participation may be enjoyable
14. Correction of remediable physical defects
15. Happy adjustment of pupils to the school life in general

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Prepare an outline of the development of physical and health education in your school or in some school to which you have access, as a basis for consideration of the present program of physical and health education.
2. Study the different influences that have acted on the program of physical and health education in your school or in some school to which you have access, with a view to proposing modifications to correct tendencies out of line with the best present-day practices.
3. Compare the aims of the program of physical and health education in some school with which you are familiar with those considered in the text.
4. List the special features of the program of physical education that appear to meet with greatest approval from students, and evaluate these features in terms of the characteristics of the program set forth in the text.
5. Appraise the facilities for physical education provided by your school or some other school of your acquaintance, and outline the recommendation which should be called to the attention of the superintendent and board of education for consideration in planning a program of improvement.
6. Check the injuries received by pupils in your school through physical activities during the past school year and prepare a report which suggests ways of removing the causes through the incorporation in the program of features conducive to safety, like those listed on pages 111 and 112.
7. Evaluate the program of intramural sports and games in your school or in some school with which you are familiar, in the light of the activities car-

ried on in the 23 secondary schools for which data are presented on page 114.

8. Criticize the activities listed by Williams and Brownell for seasonal intramural sports and games in the light of applicability to schools in the section of the country about which you know most.
9. Criticize the methods of financing interscholastic athletics in secondary schools generally in the light of the practices of selected secondary schools reported by Brammell, as quoted in Table 15 on page 119.
10. Point out the strong and the weak features of the health program in some school of your acquaintance, in terms of the major aspects of the program set forth on page 96.
11. Prepare a general appraisal of the program of physical and health education in accordance with the fifteen outcomes listed on page 126.
12. Evaluate the efforts of departments of physical and health education in a sample group of high schools to prevent the development of unhygienic habits and physical defects among pupils.
13. Collect data from high schools in different enrollment groups for the purpose of ascertaining current practices in the planning of playing fields.
14. How do the practices in intramural athletics of nonselected secondary schools in some selected area compare with the practices of the innovative schools reported in Monograph No. 27 of the National Survey of Secondary Education?
15. Evaluate the current practices with respect to the measuring of progress in physical education in high schools of different types of organization and of different enrollment groups.

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Chapter V

Directing the Extracurriculum

EXTRACURRICULUM ACCEPTED AS PART OF THE EDUCATIONAL PROGRAM

Change of views regarding these activities. The output of numerous books on extracurriculum activities within recent years, and corresponding evidence in periodical literature of vital interest in the topic, suggest the discovery of a new medium of education. In former days extracurriculum activities had no recognition from school authorities; they were, in fact, suppressed. The concept of the school as "an embryonic community life, active with types of occupations that reflect the life of the larger society," employing "active, expressive, and self-directing factors" in the educational process,[1] had not yet been popularized among either theorists or practitioners. Rather, the school was a place for absorption of the teacher's offerings. Extracurriculum activities were useless play which stole the pupils' time from "education."

Despite opposition, however, the pupils persisted in their activities in order to compensate for the unreal life of the school. The older the pupils, the more difficult and the more highly organized were the activities which they undertook and which were necessary to satisfy their natural tendencies. Then came the policy of toleration on the part of the school authorities, as the concept of the pupil as an active and social being gained some acceptance. Extracurriculum activities were described as "outlets for surplus physical energies" and "social sedatives."

The present tendency is to recognize positive educational value in the extracurriculum, to promote pupil-initiated projects, and to capitalize for educational growth the natural social and creative propensities of youth. It can hardly be doubted that the present acceptance of extracurriculum activities is rooted in the same educational theories which are slowly reshaping the curriculum, the aims, and the whole spirit of the school. The conception of the educational process as the accomplishment of learning through directed living, the conception of the school as "a miniature community, an embryonic society,"[1] in which pupils learn to live the civilized life of today by actual participation in social processes—these are ideals to the realization of which it is increasingly recognized the voluntary activities of pupils may be guided.

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[1] John Dewey, *School and Society*, p. 40. University of Chicago Press, 1899.

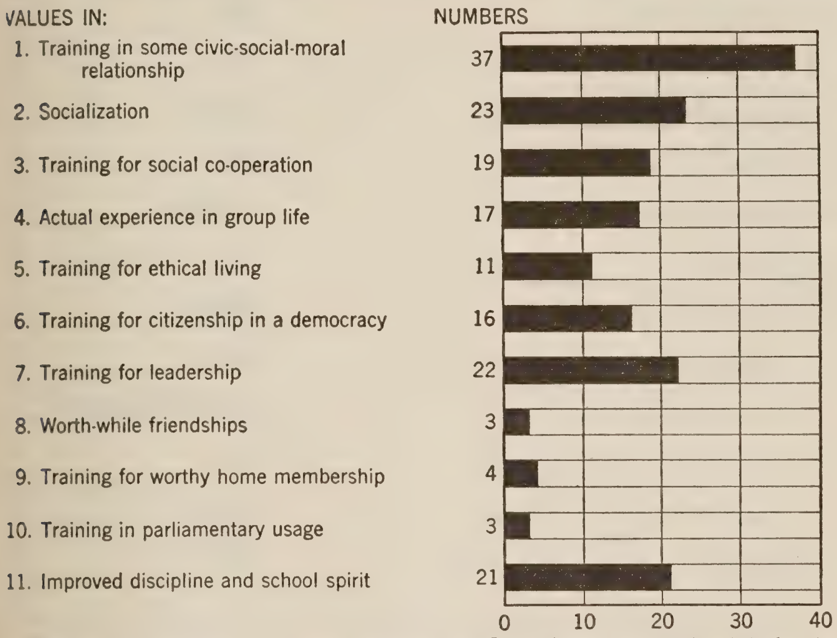

FIGURE 3. Number of Writers Recognizing Each Civic-Social-Moral Value in Allied Activities[2]

Values ascribed to extracurriculum activities. Composite opinion of the values of the extracurriculum is afforded in figures 3 and 4,[3] which are Koos's representations of the findings of his analysis of educational literature. Such a consensus is indicative of the relative importance of the various values in the minds of those who contributed their views to educational periodicals and books in recent years. The writers, according to the compiler,[4] were largely "men and women in positions of administrative responsibility in junior, senior, and four-year high schools," with "a smaller representation of those not in actual control

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[1] *Ibid.*, p. 28.

[2] Values recognized three or more times by thirty-eight writers in forty writings.

[3] Leonard V. Koos, "Analysis of the General Literature on Extra-Curricular Activities," Chapter II of *Extra-Curricular Activities*, p. 11, Fig. 1. Part II, Twenty-fifth Yearbook of the National Society for the Study of Education, 1926. Reproduced by permission of the Society.

[4] *Ibid.*, p. 9.

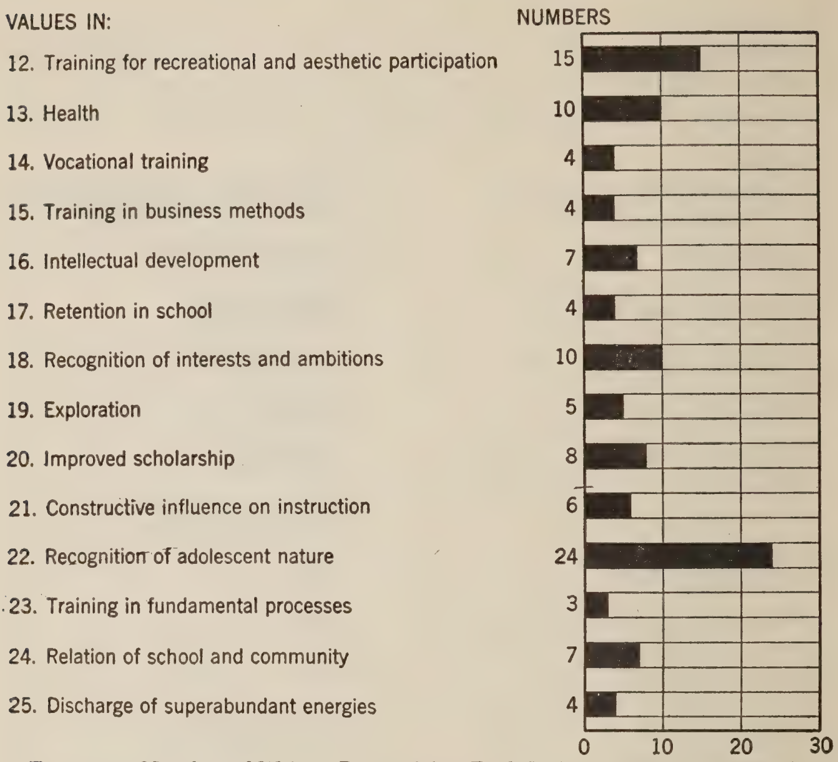

FIGURE 4. Number of Writers Recognizing Each Value in Allied Activities [1]

of affairs in secondary schools, although in almost all cases they maintain contact with such schools." The writings chosen were "intentionally general in scope, except that ten dealt specifically with these activities in junior high schools."

In Figure 3 are grouped the civic-social-moral values. Item 1 indicates that training for some one or more of these relationships was mentioned in 37 of the 40 writings. A number of these values will be readily recognized as occurring frequently in the literature on the purposes of secondary education and in statements of objectives for some of the school subjects. Others, as items 4, 7, 10, and 11, should be considered as values proximate to the aim of good citizenship.

Further evidence of the identity of values seen in extracurriculum activities with the aims of the modern secondary school is readily to be noted in the first three values named in Figure 4. The remaining values in the figure refer to the achievement of conditions favorable to the effective functioning of the school. The fact that these writers see in the extracurriculum such a wide range of contributions to educational purposes is a challenge to the effective organization and administration of these activities.

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[1] Values other than civic-social-moral mentioned three or more times by thirty-eight writers in forty writings.

A more recent appraisal of extracurriculum activities by means of a consensus of opinion was attempted as a project of the National Survey of Secondary Education.[1] The authors canvassed alumni of a private secondary school, alumni of a public high school, members of three service clubs, and graduate students in educational administration. Responses of these groups to inquiries of varying form signified their strong conviction of the worth of extracurriculum activities as educational media. When asked to distinguish between best and poorest reasons for participating in activities, the several groups exhibited a high state of agreement, seeming thereby to establish the competence of the members to render discriminating judgments in evaluating the influence of the activities.[2]

A number of studies have been made to determine the effect of participation in the extracurriculum on scholarship.[3] The conclusion reached in most of these studies is that scholarship is not affected adversely. Such a finding, however, is not satisfying. It is strictly negative. It is in no sense an evaluation of the claims which have been set forth. The hypothesis of all such investigations is that extracurriculum activities may be a source of harm rather than of good by detracting from the values which pupils derive from the curriculum. It is assumed that the activities will be so regulated as not to interfere with scholarship. This attitude is essentially a denial of the significance of such outcomes as are given in figures 3 and 4, or at least an insistence that scholarship should take precedence to such outcomes.[4]

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[1] William C. Reavis and George E. Van Dyke, *Nonathletic Extracurriculum Activities*, pp. 150–172. National Survey of Secondary Education, Monograph No. 26. United States Office of Education, Bulletin No. 17, 1932.

[2] *Ibid.*, pp. 167–169.

[3] A. M. Swanson, "The Effect on High-School Scholarship of Pupil Participation in Extra-Curricular Activities," *School Review*, XXXII (October, 1924), 613–626.

Walter S. Monroe, "The Effect of Participation in Extra-Curriculum Activities on Scholarship in the High School," *School Review*, XXXVII (December, 1929), 747–752.

W. J. B. Cormany, "High-School Athletics and Scholarship Measured by Achievement Tests," *School Review*, XLIII (June, 1935), 456–461.

[4] For a fuller discussion of this point see George S. Counts, "Procedures in Evaluating Extra-Curriculum Activities," *School Review*, XXXIV (June, 1926), 412–421.

The problem of scholarship versus the values claimed for the extracurriculum is interestingly illuminated by Terman's interpretation of the researches which he and his committee assembled in exposition of the relations of "nature and nurture." [1] Following his comment that the data apparently showed that the pupil's mental level counted for more in his achievement than his days in school, the quality of his teacher, the method by which he is taught, and so on, Terman says: [2]

> If the present exaggerated emphasis upon subject-matter achievement is lessened, however, what is to take its place? The possibilities are: first, that we shall in time place more emphasis than we do now upon the ethical and social ends of education and care more than we do now about making the schools a wholesome place in which to live; second, that we shall stress, to a greater degree than we now do, the child's attitudes and interests as contrasted with his scholastic achievement.

Such a statement is plainly suggestive of a disposition to place a lower relative value on what now passes as the curriculum than is at present the case, while the desirable ends enumerated are commonly ideals of the extracurriculum.

Some further light on relative values may be derived from a careful study comparing high-school leaders with high-school scholars, as reported by Shannon.[3] He sought to find which were most successful in life. The selection of each group and the measurement of success were accomplished by techniques reflecting faithful observance of the requirements of scientific method but too detailed for reporting here. Two of Shannon's conclusions were as follows: [4]

> 3. It seems that whatever it is that is necessary for success in the high school is not the factor that is requisite for success in life. This finding is the most important discovery made by the present investigation.
>
> 4. What is required to excel in the extracurriculum life of the high school seems to be the same thing that contributes most to success later.

The most marked limitation of such a study, of course, is that it is impossible to determine whether the leaders were developed by their extracurriculum experiences or entered into such activities because they were leaders.

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[1] *Nature and Nurture*, Twenty-seventh Yearbook of the National Society for the Study of Education, 1928.

[2] L. M. Terman, "The Ultimate Influence of Standard Tests" (Editorial), *Journal of Educational Research*, XVII (January, 1928), 57–59.

[3] J. R. Shannon, "The Post-School Careers of High-School Leaders and High-School Scholars," *School Review*, XXXVII (November, 1929), 656–665.

[4] *Ibid.*, p. 665.

Another study similarly limited in significance is summarized in Figure 5.[1] The purpose of the investigation was to measure the differences in personality between girls in grades XI and XII of a large city high school who participated in extracurriculum activities, and those who did not. The first group was composed of 169 girls; the second, of 203 girls. It will be noticed that the participating girls made higher scores on the self-sufficiency scale than did the nonparticipating girls. Regarding the meaning of scores on this scale, the author of the instrument says that individuals scoring high prefer to be alone, rarely ask for sympathy and encouragement, and tend to ignore the advice of others, while those scoring low dislike solitude and frequently ask the advice and encouragement of others. On the second scale, individuals scoring high tend to be introverted; those scoring low, extroverted.

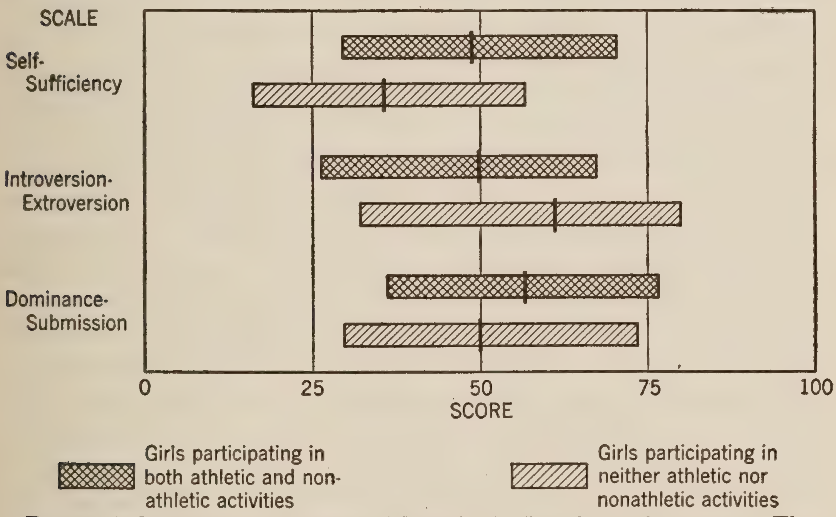

FIGURE 5. Medians and Ranges of Middle 50 Per Cent of Scores on Three Scales of the Bernreuter Personality Inventory

The figure shows that the participating girls are relatively extrovert; the nonparticipating girls, relatively introvert. On the third scale, high scores indicate dominant characteristics; low scores, submissive characteristics. The participating girls apparently are more dominant than the nonparticipants.

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[1] E. Brenneta Andrews, *The Relation of Social Adjustment to Participation in Intra-Mural Athletics and to Socio-Economic Status.* M.A. thesis, 1935, University of Pittsburgh Library.

The differences between the two groups of girls are not large, but they are of some consequence when it is realized that no allowance has been made for the many factors and widely varying combinations of factors operative in the lives of these girls. In home, church, and community life and in the unorganized social life of the school there are many opportunities for self-expression which may well be the equivalent in personality formation of those represented by the organized extracurriculum life of the school.

This discussion of values is important because assumptions of value or lack of value are so clearly reflected in administrative policies. The high-school executive will formulate many of his most significant policies in accordance with his conception of values in curriculum and extracurriculum. A balanced and harmonious understanding of each is needed, so that they will not stand in sharp contrast to each other. It would be most unfortunate if there were to be accepted a definition of extracurriculum activities, on the one hand, as those which pupils initiate and enter into with spontaneity and wholeheartedness, and of curriculum activities, on the other hand, as uninteresting, meaningless tasks which adults in their wisdom impose on youth. To assume that the curriculum either is or must be "dry husks of academic learning," a tedious discipline with little possibility of intrinsic motivation, while representing the extracurriculum as filled with meaning and interest for the pupil is a strange inconsistency in point of view. It should be self-evident that the philosophy which impels us to utilize the extracurriculum must logically compel us to recast the curriculum so that it has value which the pupil himself perceives and yearns to acquire. Curriculum and extracurriculum should be scarcely distinguishable.

Obstacles to achieving the values claimed. Realizing the benefits which may be derived from the extracurriculum depends on the surmounting of many difficulties. Attention is constantly being called to effects which are harmful rather than beneficial in the program as currently carried on. While athletics figure most prominently in these allegations of disadvantage and peril, the literary and social activities have from time to time met with censure and demands for modification. That these charges and criticisms do not originate solely in the minds of those who have failed to sense the educational possibilities of extra-class life is apparent from Koos's compilation. He reports frequent mention of "obstacles" from the same writings from which he derived the summary of "values" quoted above. The "obstacles to achieving values in extracurricular activities" that recur most often are as follows. The numbers in parentheses indicate the frequency with which Koos found each mentioned.[1]

1. Extent of participation (22)
2. Antisocial practices (16)
3. Supervision (14)
4. Economic considerations (11)
5. Outside interference (5)
6. Duplicating activities (4)
7. Central control (3)
8. Conflicting schedules (2)
9. Unsatisfactory facilities (2)

The explanatory comments of the compiler are as follows:

> Illustrative of the specific obstacles which have been classified in . . . these nine groups are: in Group 1, individual pupils participate too little or too much; in Group 2, secret societies and cliques have sometimes been developed; in 3, teachers are unwilling to sponsor the activities, are unconvinced of their value, or attempt to dominate these activities just as they are accustomed to dominate in course work; in 4, the activities are too costly, or there is waste of and inadequate accounting for funds; in 5, outside interests, like those of spectators or alumni, sometimes demand anti-educational lines of emphasis.

Very largely, the source of these obstacles is to be found in the lack of an educational point of view. The pupils themselves are active primarily on the play level, which means that they are especially motivated by sheer pleasure in the activity without regard to its effect on their own development. Being permitted without guidance to follow their impulses, they are bound to waste time in ill-balanced activity. Similarly, those outside the school are likely to be little aware of the educational significance of extracurriculum activities, and some therefore feel no hesitation about exercising their influence on these phases of student life. As for the teachers and administrators, it is evident from the nature of one or two of the categories of obstacles that not all of them sense the educational possibilities of pupil-initiated organization and activity.

These categories of obstacles are especially meaningful in a treatise on school administration because they point definitely to the fundamental problems which administration must solve in effectuating favorable conditions for extracurriculum learning. How to achieve balanced participation by all pupils, how to maintain democracy in the voluntary group life of pupils, how to achieve a supervision which is really effective and yet not destructive of the essential spontaneity, how to assure a proper economic administration of pupil organizations, how to eliminate untoward outside influences—these are plainly the main subdivisions into which the large problem of administering extracurriculum activities may be analyzed.

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[1] *Op. cit.*, p. 13, Fig. 2. Quoted by permission.

PRINCIPLES OF ORGANIZATION, ADMINISTRATION, AND SUPERVISION

Derivation of the principles. It is but natural that those who are in a position to perceive the values of extracurriculum activities and to be aware of the hindrances which may block the achievement of the values should also make suggestions or lay down principles for such management of the activities as will attain the aims and overcome the obstacles. Koos found in his analysis of the periodical literature dealing with the extracurriculum that he was able to derive *principles* for its organization, administration, and supervision. These were sometimes found as "rules to be followed," sometimes as "admonitions concerning practices to be avoided or encouraged, and sometimes in other ways. . . . If not always explicit in the writings, they were clearly implicit in what is recommended."[1] The summary of these principles, shown in Figure 6,[2] page 139, is a significant code for all who have responsibility for the direction of these activities. It is a consensus of opinion and includes judgments in many cases resting on substantial experience of individuals who have had the opportunity and the duty of such management. The principles have been classified in four main groups: those concerned (1) with centralization of organization and administration, (2) with problems of supervision, (3) with the scope of activities and extent of participation, and (4) with other administrative problems.

The first group signifies a conviction that the extracurriculum should be controlled by the responsible head of the school and that it should be organized, unified, and planned, presumably to assure its fullest contribution to school purposes. The second group refers to the assurance of competent and sympathetic guidance on the part of the teaching corps. Principles of the third group have to do with securing the advantages of extracurriculum participation for all, making the extracurriculum an integral part of the school, and limiting pupil participa-

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[1] *Op. cit.*, p. 14.

[2] *Op. cit.*, p. 15, Fig. 3. Reproduced by permission.

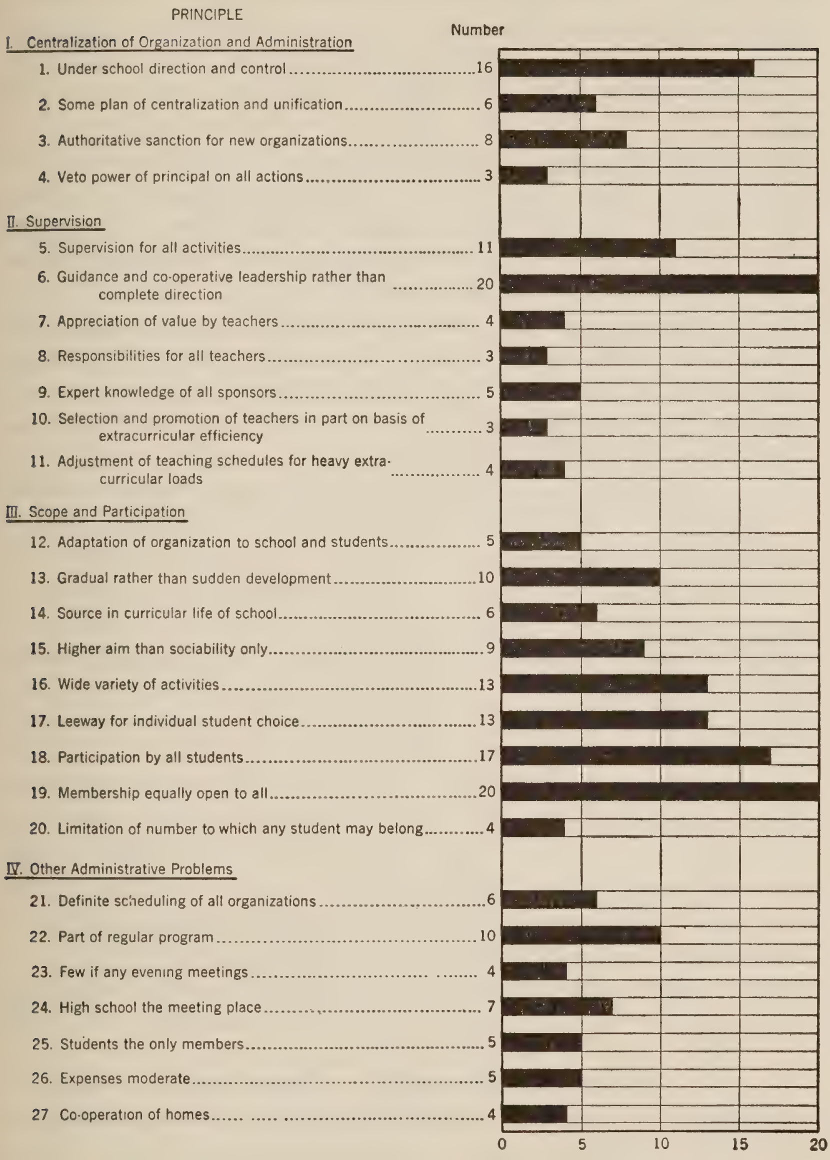

FIGURE 6. Number of Sources Recognizing Each Principle[1] to Be Observed in Organizing, Administering, and Supervising Allied Activities

[1] Principles recognized three or more times in the sources.

tion. In the fourth category are listed some rather specific rules of administration calculated to accord a real place in the school's program to these activities, to impose conditions which will assure school control, and to hold expenses low enough to encourage universal participation.

The larger meaning of these principles. Looking at the list of principles as a whole, one senses an apparent disposition to utilize extracurriculum activities as educational opportunities; few of them could be interpreted as being in any degree rules for the management of the activities for the sake of repression or to keep them from interfering with the curriculum. Following out these principles would tend to place the extracurriculum on as high a level as an educational medium as is the curriculum. Especially bearing out this conclusion are those principles which call for a degree of expertness in each sponsor for the field he supervises, the selection and promotion of teachers in part on the basis of their efficiency and value in supervising activities, the adjustment of teaching loads in allowance for heavy burdens in extracurriculum sponsorship, the connection of the activities with the curriculum, definite scheduling of all organizations, and the assignment of a place in the regular program to the activities. Indeed, some believe that all activities which have real merit should be incorporated into the curriculum instead of being separately administered. They have in mind the enrichment of the curriculum, and they feel that a separate program of extracurriculum activities serves to impoverish the curriculum and to sterilize it of the elements which appeal to adolescent interest. However, with curriculum activity as highly standardized in content as it is at present and governed as it is through credits and marks, there should be some leeway for student activity which does not lend itself to such standardization. Possibly continued observation of and a growing sympathy with the values of extracurriculum activities may eventually break down certain curriculum stereotypes so that the two educational avenues can be merged in one broad thoroughfare.

If certain perverted attitudes could be changed, the barriers which now separate curriculum from extracurriculum might well disappear. Among these attitudes are the worship of subject matter and the assumption that by the absorption of a body of erudition one is educated; the disposition to measure education in marks and credits; the view that extracurriculum activity should be pointed toward the production of public spectacles; and the domination of both curriculum and extracurriculum by the competitive principle rather than by the idea of developing the individual.

Another notable aspect of these principles is the implication of democratic secondary education. Just as in statements of principles to govern curriculum provision we find the assumption that "all the children of all the people" are to enjoy secondary education, so in Figure 6 we find democratic assumptions behind several of the principles which are stated with marked frequency. The reader will note especially the following recommendations: appropriately adapting the extracurriculum organization and activities to the particular school and to the pupils enrolled; providing a wide variety of activities; granting leeway for individual pupil choice; encouraging participation by all pupils; insisting on democratic principles in determining membership in organizations; and holding the expenses to low levels so as to bar none because of economic condition. Such principles of administration reflect our recent awakening to the extent and variety of individual differences and our resolution to realize the ideal of universal secondary education.

TYPES OF ACTIVITIES AND ORGANIZATIONS

Classification. The lists of activities and organizations which frequently appear in the educational literature dealing with the extracurriculum more and more illustrate the breadth of the experience offered through this medium. It is as broad as life itself. Accordingly, the activities are not easy to classify. Reavis and Van Dyke, canvassing with care twenty-four selected secondary schools, placed the nonathletic activities in seven categories, as follows: [1]

> Group I. *Student government, school service, and honorary organizations.* . . .
> Group II. *Social, moral, leadership, and guidance clubs.* . . .
> Group III. *Departmental clubs.* Organizations whose primary purpose is that of supplementing or extending the work of specific courses in the regular curriculum . . . constitute this group.
> Group IV. *Publications and journalistic organizations.* . . .
> Group V. *Dramatic clubs, literary societies, and forensic activities.* . . .
> Group VI. *Musical organizations.* . . .
> Group VII. *Special-interest clubs.*

As already indicated, the authors just quoted did not include athletics in their treatise. Those activities are discussed in a separate monograph of the National Survey.[1] They would constitute an eighth group in the above classification.

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[1] *Op. cit.*, pp. 78–79.

Another extracurriculum activity which such a classification does not include is that of the academic contest. Within the past decade such contests have become established as yearly events in many sections of the country. They have recently elicited sharp criticism.[2]

The social recreation of the school seems not to be comprehended in the above classification. The omission may, however, be only apparent rather than real, because schools generally accept Principle No. 15 in Figure 6, page 139, namely, that organizations should have a "higher aim than sociability only." Doubtless an accepted corollary of this principle is that temperate indulgence in social recreation is a laudable secondary activity of many pupil groups.

The categories designated by Reavis and Van Dyke seem, also, not to include organizations of which all pupils are involuntary members, such as home-room and class organizations. It is increasingly urged that the home room should be a potent factor in the social experience of the pupil. Although the home-room group is a unit of the school for administrative, clerical, advisory, and instructional purposes, and it may be and frequently is completely dominated by the teacher, progressive thought demands the fostering for it of new purposes which pupils can feel are especially their own.[3] Class organizations have long featured the life of secondary schools, serving various purposes, of which social recreation is commonly one. Under competent guidance they yield large educational dividends.[4]

If the activities could be classified on the basis of the *types* of organization, they would be found to exhibit a wide range—from small informal groups bound together only by a community of purpose, through committees, teams, staffs, clubs, and societies, to larger and more formal organizations, such as athletic associations, student councils, and student-body organizations. In this variation there is evidence that extracurriculum life affords the pupil an excellent diversity of social experience. It is far more comparable to the group life of adults than is the characteristic curriculum experience. At its worst the curriculum is monarchical and monotonous, and at its best it can hardly exceed the democracy and the variety in form which are foremost attributes of the extracurriculum.

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[1] P. Roy Brammell, *Intramural and Interscholastic Athletics*. National Survey of Secondary Education, Monograph No. 27. United States Office of Education, Bulletin No. 17, 1932.

[2] Harl R. Douglass, "The Effects of State and National Testing on the Secondary School," *School Review*, XLII (September, 1934), 497–509.

[3] Elbert K. Fretwell, *Extra-Curricular Activities in Secondary Schools*, Chap. II. Houghton Mifflin Company, 1931.

Harry C. McKown, *Home Room Guidance*. McGraw-Hill Book Company, Inc., 1934.

[4] See Elbert K. Fretwell, *op. cit.*, Chap. III.

PRACTICES IN ORGANIZATION AND ADMINISTRATION

The organization for administering extracurriculum activities. The extent of the extracurriculum, as just described, justifies careful organization. If its values are to be realized and its perils are to be avoided, school control is essential. Centralized and unified government is necessary if there is to be co-ordination and some uniformity of procedure among the host of varied activity organizations. Any plan for control and direction, however, must be worked out in such a manner as to preserve the student initiative and spontaneity which are the very heart of extracurriculum activity. The foremost principle of the sponsorship to be exercised is that it must be in the nature of "guidance and co-operative leadership rather than complete direction and domination by the teacher." Student representation in the central controlling body must therefore be amply provided for. At the same time, due assurance that educational purposes will be consistently realized demands that the faculty should be well represented in the central control.

There is reason to believe that not many schools have truly comprehensive organizations of the extracurriculum. To find examples described in educational literature is not easy. The elements of organization which appear most frequently are student leaders and faculty sponsors or advisers for each activity. Another element often described or mentioned is the student council, composed sometimes of one house and sometimes of two. Its functions are most commonly those of school discipline. Seldom is it authorized to govern such highly organized activities as athletics, to charter school clubs and other organizations, or to legislate broadly on matters of extracurriculum policy. Occasional mention is made of a general organization of the student body which includes all students and elects officers with power in some matters of general concern to the school.

The appropriate scope, structure, and authority of a government of the extracurriculum was briefly intimated by the surveyors of the Tracy Union High School, California, as the conclusion of their chapter on the student-activity program. The following may be quoted from their recommendations: [1]

> There should be a faculty and student council which should consider all matters concerning the policies and plans for student activities. Assembly programs should be incorporated into the student activity phase of the school life. At least a certain number of assemblies should be allocated to the student-activity council to enable it to stimulate co-operative effort for the promotion of worthy student enterprises. . . .
>
> The student-activity council should also formulate the rules and regulations by which new student activities can be developed and by which those which are no longer functioning could be eliminated. In this the axe and the pruning shears are often as important as the watering can and the spade.
>
> The student-activity council should also undertake to secure community co-operation in the improvement of conditions with relation to moving-picture programs, community dances and parties, and all other community social activities in which high-school students may find outlet for their social and civic contributions to community life.

Illustrative organizations. A comprehensive plan for the administration of extracurriculum activities is that which was put into operation by Wilds and described by him.[2] His plan involved the organization of the entire student body into an association which, with the principal, formed a policy-determining body. A faculty supervisor of activities, assisted by a senate of seven members, performed the executive functions. The president of the student association acted as chairman of the senate. The remaining six members of the senate were the student chairmen of six boards—athletic, forensic, social, literary, music, and morals—under which were grouped the many teams, societies, clubs, staffs, and other organizations. Besides the student chairman, each board consisted of student managers, a teacher treasurer, and a coach or director from the faculty. All schedules were subject to the approval of the supervisor, who was ex officio a member of all the boards.

The plan devised by Wilds is clearly meant for a large high school; the machinery of administration would be found needlessly complex for small schools. A first step in simplification would be the elimination of the boards so that there could be direct action of the senate on the activities. An example of the simpler organization is shown on page 146 in Figure 7B, which is a chart of the plan of control proposed for a high school of 300 pupils. Here, as in Wilds's plan, ultimate control rests in the principal and the student body jointly. The body which formulates the school's extracurriculum policies and exercises general direction is the board of extracurriculum activities, composed of the faculty and student leaders of each organization, the principal and the dean of girls, with a representative (perhaps president) of the student body as chairman. Executive control of each activity is exercised through direction of sponsors by the principal and dean of girls. Such a plan allows happily for the play of student initiative and the location of much responsibility in pupils. It affords centralization and coordination; it is calculated to prevent the undue dominance in student life of certain activities; and it provides a berth in the general scheme for any new or temporary activity. Such an organization is calculated to make the school a well-knit community and to afford easy channels for the direction of extracurriculum life toward genuinely educational ends. Obviously the advantages will not be realized unless the principal is equal to his opportunity.

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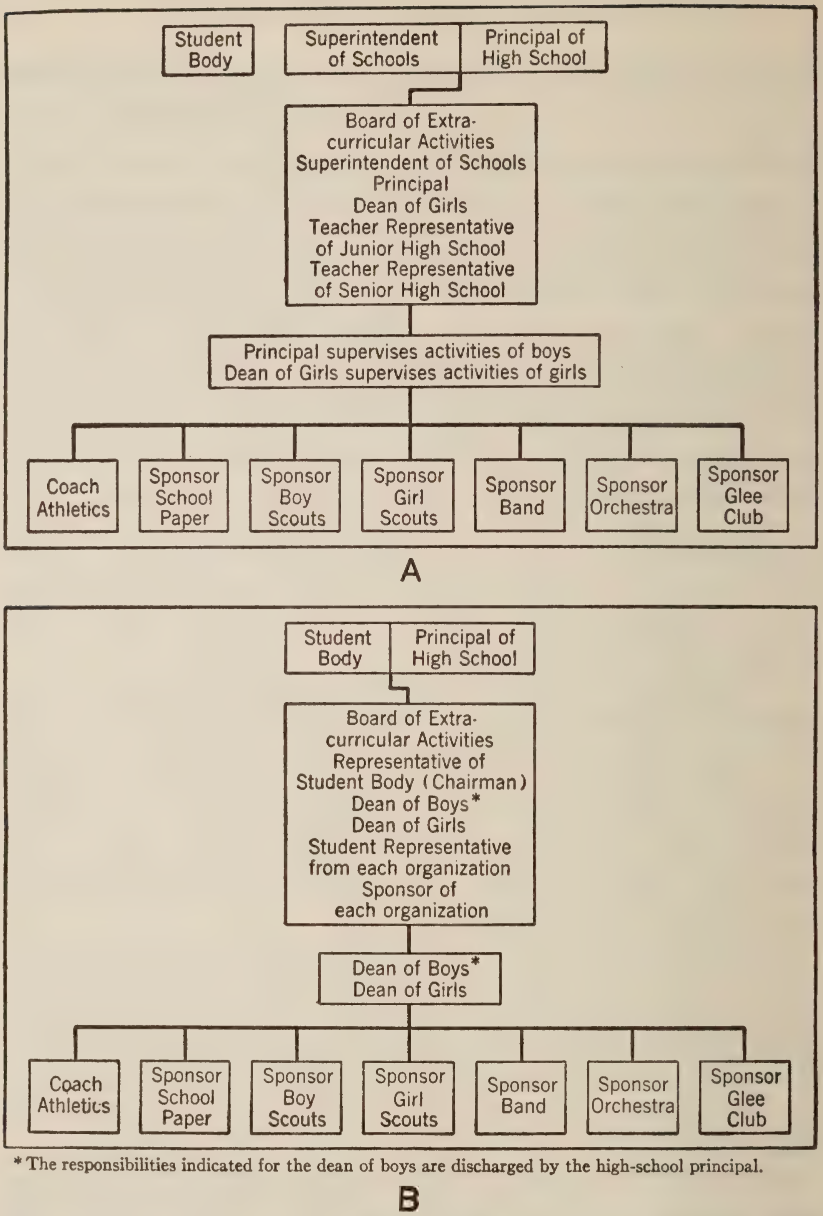
[1] Jesse B. Sears, Director, *Tracy Union High School Survey*, p. 84. Tracy, California: Board of Education, 1935.

[2] Elmer H. Wilds, "The Supervision of Extra-Curricular Activities," *School Review*, XXV (November, 1917), 659–673.

The upper half of Figure 7 exhibits a situation in which there is undue faculty domination. Presumably there are student leaders for the various activities, but their sphere of influence is limited strictly to the activity which they lead. The student body is not represented in the control of these affairs, which are essentially its own, arising out of the imagination and the initiative of its members. The opportunity to realize that cohesion and that social control which is characteristic of community life is not utilized.

Published examples of comprehensive organizations of extracurriculum activities are practically nonexistent, although many plans for the organization of pupil participation in school control have appeared in print. As the latter is a single phase of the extracurriculum which is discussed in a following section of the chapter, citations of its organization will be presented as part of that discussion rather than at this point.

Practices in integration of curriculum and extracurriculum. Earlier in this chapter the similarity of values in the curriculum and the extracurriculum occasioned brief speculation about the possibility of merging these two educational highways. Some progress has been made in this direction, as evidenced by two recent surveys. In the monograph of the National Survey which has already been cited, Reavis


Student Body
Superintendent of Schools
Principal of High School
Board of Extra-curricular Activities
Superintendent of Schools
Principal
Dean of Girls
Teacher Representative of Junior High School
Teacher Representative of Senior High School
Principal supervises activities of boys
Dean of Girls supervises activities of girls
Coach Athletics
Sponsor School Paper
Sponsor Boy Scouts
Sponsor Girl Scouts
Sponsor Band
Sponsor Orchestra
Sponsor Glee Club
A
Student Body
Principal of High School
Board of Extra-curricular Activities
Representative of Student Body (Chairman)
Dean of Boys*
Dean of Girls
Student Representative from each organization
Sponsor of each organization
Dean of Boys*
Dean of Girls
Coach Athletics
Sponsor School Paper
Sponsor Boy Scouts
Sponsor Girl Scouts
Sponsor Band
Sponsor Orchestra
Sponsor Glee Club
B

* The responsibilities indicated for the dean of boys are discharged by the high-school principal.

FIGURE 7. Existing (A) and Proposed (B) Plans for the Administration of Extracurriculum Activities in the Aurora, Minnesota, High School [1]

[1] From Fred Engelhardt, Director, *Survey Report, Aurora Public Schools, Aurora, Minnesota*, p. 96, Diagram 7. Educational Monograph No. 13, Bulletin of the University of Minnesota, College of Education, 1927. By permission of the publisher, The University of Minnesota Press, Minneapolis, Minn.

and Van Dyke reported[1] that in their canvass of 224 selected schools they found only a small percentage organizing nonathletic activities as curriculum activity. The school paper is the activity most frequently organized on that basis. The authors conclude that "The dominance of practice is decidedly against the organization of nonathletic extracurriculum clubs as curriculum activities."

The other survey [2] involved 269 carefully selected secondary schools to the principals of which was submitted a list of activities with the request that the curriculum or extracurriculum status of each activity be indicated at two time periods—when the activity was first introduced and at the time of inquiry. In order that the persons responding might have a common understanding of *curricular* and *extracurricular*, the investigator included clear-cut definitions with the inquiry. Table 16, page 148, summarizes the findings. It shows a definite trend toward the curricularization of activities which are commonly thought of as extracurriculum. The trend is most marked in the case of musical activities, the newspaper, dramatics, and debating, although it must be noted that in nearly half the schools the musical activities were classified as curricular at their introduction. "In no instances did schools report a change of any activity from a curricular to an extracurricular position in their programs." [3]

Practices in recognition, limitation, and stimulation of participation. Mention has already been made of overparticipation and underparticipation of pupils in the extracurriculum as constituting problems for administration to solve. One way of meeting the problem of underparticipation is to require participation. Reavis and Van Dyke, in their study in the National Survey of Secondary Education of 224 schools specially selected for their progress in the organization and administration of nonathletic activities, found the following percentages requiring some participation: of junior high schools, 37.5; of senior high schools, 13.2; of six-year high schools, 9.1; of four-year high schools, 16.9.[4] The schools requiring participation supported about 40 per cent more activities than did those without such compulsion. To serve the varied interests and abilities of an entire student body there is needed, no doubt, a broader extracurriculum than that which grows up when participation is on a voluntary basis.

[1] P. 72.

[2] Galen Jones, *Extra-Curricular Activities in Relation to the Curriculum.* Teachers College, Contributions to Education, No. 667, 1935.

[3] *Op. cit.*, p. 45.

[4] *Op. cit.*, p. 22, Table 16.

TABLE 16

PERCENTAGES OF SCHOOLS HAVING ACTIVITIES CURRICULAR AT TIME OF THEIR INTRODUCTION COMPARED WITH PERCENTAGES HAVING ACTIVITIES CURRICULAR IN 1933–34[1]

Activity	Number of Schools Offering It	Percentages on Curricular Basis	
		At time of Introduction	School Year 1933–34
1. Newspaper	243	20.6	50.6
2. Magazine	90	8.9	14.1
3. Yearbook	229	2.2	9.9
4. Handbook	129	3.1	5.7
5. Boys' glee club	236	39.8	75.8
6. Girls' glee club	242	44.2	77.9
7. Chorus	209	53.1	78.6
8. Orchestra	261	43.3	82.6
9. Band	241	43.6	80.0
10. Basketball	264	3.8	14.5
11. Football	257	4.7	9.8
12. Track and field	254	3.1	10.8
13. Baseball	208	5.3	13.1
14. Tennis	232	3.0	10.0
15. Golf	191	2.6	6.8
16. Swimming	115	11.3	23.2
17. Wrestling	90	10.0	15.1
18. Hockey	77	13.0	18.7
19. Dramatics	251	16.0	45.0
20. Debating	229	12.7	43.8
21. Student council	213	.4	.4
22. Assembly	232	0.0	0.0
23. Clubs			
a. Departmental	231	0.0	0.0
b. Recreational	206	0.0	0.0
c. Honoring	196	0.0	0.0
d. Special interest	175	0.0	0.0
e. Outside agency	222	0.0	0.0
24. Home room	196	2.1	2.6

Table 17, page 149, based on the study by Reavis and Van Dyke of schools which did not require participation, shows grade by grade the percentages of pupils engaging in nonathletic extracurriculum activities.[2] Inspection of the figures suggests that the junior high school inducts its younger members into the extracurriculum much more generally than does the senior high school or the four-year high school. Speculation on the reason for this difference would doubtless lead us to venture the opinion that the junior high school is more often a center of innovation than is the unreorganized school.

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[1] Adapted from Galen Jones, *Extra-Curricular Activities in Relation to the Curriculum*, p. 15, Table IV, and p. 42, Table XV. Teachers College, Contributions to Education, No. 667, 1935.

[2] *Ibid.*, p. 24. Adapted from Table 18.

TABLE 17

PERCENTAGES OF PUPILS VOLUNTARILY PARTICIPATING IN NONATHLETIC EXTRACURRICULUM ACTIVITIES IN 132 SECONDARY SCHOOLS NOT REQUIRING PARTICIPATION

TYPE OF SCHOOL ORGANIZATION	GRADE						TOTAL
	7	8	9	10	11	12	
Junior	62.4	66.4	67.9	—	—	—	65.6
Senior	—	—	—	43.9	58.9	65.8	54.3
Six-year.	68.0	68.8	70.2	70.2	75.1	78.3	71.6
Four-year	—	—	45.4	51.9	62.3	75.3	56.5

Another fact to be noted in the table is the uniformly high level of participation achieved in the six-year schools.

Jones found [1] that the proportion of pupils participating in activities, whether administered on a curriculum or an extracurriculum basis, was in inverse relation to the size of schools. For many activities the percentage of pupils who participated, in schools enrolling fewer than 750, was two or three times as large as the percentage in schools enrolling 2250 or more.

Hayes [2] sought to determine the major factors which condition participation in extracurriculum activities. In a detailed study of one high school he found higher amounts of participation to be associated with higher intelligence, advancing sex maturity, higher social status, greater school success, American nationality, and less time consumption in home service, work for wages, study of lessons, and community group activities. Reasoning on the bases of these varied forces which influence extracurriculum participation, Hayes says that [3] "point systems and other similar attempts to regulate participation are unscientific because they are not predicated upon diagnostic study." Certainly administrative practice must take account of the conditions which are significantly associated with participation.

As a means of recognizing participation in extracurriculum activities there has been some consideration of and experimentation with *granting credit.* In the National Survey study already quoted it was found [4] that about a fourth of the schools canvassed awarded credit. The credit is allowed to count toward graduation but must be in addition to the

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[1] *Op. cit.*, pp. 48–49, Table XVI.

[2] Wayland J. Hayes, *Some Factors Influencing Participation in Voluntary School Group Activities:* A Case Study of One High School. Teachers College, Contributions to Education, No. 419, 1930.

[3] *Ibid.*, p. 69.

[4] *Op. cit.*, pp. 36–39.

15 or 16 units required in subject fields. It was the feeling of the authors that "The plan can scarcely be regarded as an incentive to participation. Its chief value seems to rest on the fact that it provides a record which makes possible (1) the guidance of pupils in the choice of activities and (2) the regulation of participation, if requirements as to number of activities and types of participation are adopted." The authors found that 4 per cent of the schools required credit in nonathletic activities for graduation from high school.

A practice in recognition of participation in extracurriculum activity which is undoubtedly receiving more and more widespread acceptance is that of recording such participation in the permanent cumulative files of the school with the records of course work. The standard record blank adopted by the Department of Secondary-School Principals[1] allots liberal space for the record of the pupil's membership and achievement in activities. Other proposed forms have included similar provision.

Limitations on participation in extracurriculum activities are commonly imposed in order to prevent neglect of curriculum responsibility and also to achieve a more equitable distribution of honors and offices among the student body than is otherwise the case. The most comprehensive study of practices in such limitations is perhaps that of Johnston.[2] Addressing an inquiry to 600 schools which were selected largely because they were known to have an extensive program of student activities, he received replies from 350. Of these, 145 had some plan in force for extracurriculum control and stimulation, 81 granted credit for some activities not provided for in the curriculum, while 124 had no system for control, stimulation, or credit. By far the most widely used plan of regulation was found to be the point-scale system, 81.4 per cent of the 145 schools employing it in some variation. By this plan each activity is assigned a number of points, varying according to the amount of time which it is estimated the activity will require and according to the degree of responsibility involved. While scales vary widely, in many schools they range from 1 to 10 points. The flexibility of the point-scale system for measuring pupil participation in the extracurriculum is the characteristic which makes it most serviceable either for limitation or for stimulation.

Johnston found that of the 145 schools with systems for extracurriculum regulation, 54 provided that participation should be variously restricted according to scholarship—31 barring failing pupils from all activity. Such practice rests on the assumption that extracurriculum activities do not possess fundamental values but are a privilege granted to the able students who can carry them while maintaining satisfactory scholarship. This point of view is further illustrated by the following provision cited by Johnston:[1]

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[1] Reproduced on pages 574–579 of this book.

[2] Edgar G. Johnston, *Point Systems and Awards.* A. S. Barnes and Company, 1932.

> The maximum number of points to be carried during one semester:

By student with any grade under D	5
By student with any grade under C	8
By student with any grade under B	10
By student with any grade under A	15

This author condemns such practices, saying:

> This practice is psychologically unsound. Reliance on extraneous compulsion to insure effort in the work of a traditional curriculum has often been substituted for a revision of that curriculum and of its methodology. . . .
>
> Failure in schoolwork is a problem for study of the individual and adjustment of work to him. It is not solved by a blanket prohibition of extracurricular participation. Exclusion of a pupil from all extracurricular activities on account of failure . . . appears to be unjustified in the light of provision for individual differences and of the psychology of interest.

What *is* good policy in limitation? The answer to this question cannot be given in definitive terms. In consideration, however, of the values ascribed to extracurriculum activities, it seems that some participation must be permitted even to pupils who are failing in course work. Such, for example, was reported to be the administrative policy in the Holmes Junior High School of Philadelphia where much attention has been given to the development and educational direction of school clubs. Each child "is always privileged to enjoy membership in at least one of the selective recreational clubs."[2] Quite likely there is also merit in the policy of a few schools which limit the number of memberships to which pupils are entitled partly on the basis of a classification of organizations. They may be classified as athletic, literary, and so on, and "the intention of the school is to prevent too great a concentration of the pupil's interest in any one kind of activity and to encourage the well-rounded development of personality."[3]

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[1] Edgar G. Johnston, *Point Systems and Awards.* Copyright, 1932, by A. S. Barnes and Company.

[2] R. L. Lyman, "The Guidance Program of the Holmes Junior High School," *School Review,* XXXII (February, 1924), 93–104.

[3] P. W. Terry, *Extra-Curricular Activities in the Junior High School,* p. 58. Baltimore: Warwick & York, Incorporated, 1926.

It seems most sensible to have the limitation on participation rest largely on diagnostic study of the individual pupil, taking into account his ability, shortcomings, environment, and interests and what can be done for him through both the curriculum and extracurriculum. What member or members of the staff should be given responsibility for such diagnosis and guidance? It is Terry's opinion that there is likely to be soundest educative direction of the pupil's participation when it emanates from the principal's office, because it is possible "to exercise this responsibility in the light of full knowledge of the qualifications of all pupils and of the nature of the work of all organizations." [1]

The practice in some schools of having membership approved by the sponsor of the organization has much to condemn it. The sponsor may and often does feel that the organization is an end in itself instead of a medium for the training of the pupils. With such an attitude he is on the lookout for superior pupils, for those who are already gifted in the activity of which he has charge. He may be slow to admit pupils of unknown ability or those who may be regarded as poor material. Such practices have not only featured the acceptance of pupils on athletic teams but also on newspaper staffs, dramatic casts, debating teams, and musical organizations.

Blame for this attitude must not be placed wholly on the sponsor. The outside pressure on athletic coaches to produce winning teams is a familiar story; and that this pressure sometimes meets little or no resistance from the school administration, which should protect a coach in the realization of sound educational aims, is well known. The coaches of dramatic and musical organizations have learned, too, that they are more largely judged by the effectiveness of the public exhibitions of their organizations than by the degree to which they have discovered and developed latent powers in the pupils of the school. The situation in school publications is similar; they are entered in state and national contests, and when "the honor of the school is at stake," opportunities for journalistic practice can hardly be extended to any but those who have already proved themselves. Some of these facts of untoward motives in extracurriculum activities are such as to cause small wonder that the sponsors tend to see their organizations as ends rather than as means. The remedy for the situation lies above all in the education of sponsors, administrators, pupils, and public to the true reason for the existence of the extracurriculum and to a determination to make it yield its utmost in value for all the pupils of the school. Such a correct perspective and such a determination would undoubtedly result in cutting down the present emphasis on interschool contests and the elaborate preparation of public spectacles. It would go far toward solving the problem of balanced participation.

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[1] *Ibid.*, p. 96.

While the discussion of participation has thus far proceeded primarily from the standpoint of recognition and limitation, some consideration of the stimulation of participation has been unavoidable. Brief mention of practices designed specifically to impel pupils to enter the extracurriculum program will conclude the treatment of this topic.

The Winfield (Kansas) High School *Manual*, which is made the object of careful study by all the pupils of that school, has a list of "Some Things to Be Done." Under this caption are set forth "Jobs running through the year," with the "Number of openings." These are followed by lists of activities peculiar to September, October, and each remaining month of the school year, together with the number of individuals needed for each activity. This example illustrates how a number of schools are calling attention to the extracurriculum by means of the handbook, the newspaper, and home-room bulletins. Some schools offer the school letter for achievement in a variety of student activities in addition to athletics. Johnston found that 28.8 per cent of the schools reporting a point-scale system do not use it to limit activity in any manner but to rate pupils in "leadership and service" as a basis for awards, or as a portion of the scheme of selection for the honor society.[1]

The National Honor Society may well be considered a means for encouraging extracurriculum participation. With its emphasis on service, leadership, and character, as well as scholarship, a pupil may hardly win membership without having shown a deep interest in the life of the school outside the classroom. The prestige of this organization is calculated to influence many pupils to desire to qualify for it.

As stated in connection with limitation of participation, individual diagnosis and counseling is probably superior to any device of a general nature as a means of inducing a widespread distribution of extracurriculum participation and a judicious usage of extracurriculum opportunity.

Practices in scheduling activities. Closely related to the problem of securing universal pupil participation in activities is the practice which is followed in scheduling them. For light on this subject we may turn to that project of the National Survey of Secondary Education which investigated scheduling practices.[1] Of 173 schools fairly representative of the different types and sizes, 152 were found to be setting aside periods within the school day for extracurriculum activities. The types of activity thus provided for, with the number of schools making a time allowance for each, are as follows: [2]

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[1] *Op. cit.*, p. 24.

Home room	116
Assembly	126
Other extracurriculum activities	82

Junior high schools more frequently than any other type of school have periods set aside for extracurriculum activities other than assembly and home room.

The frequency of the meetings of extracurriculum organizations and the time of day at which they meet are lacking in uniformity. Referring again to the National Survey project which was carried on by Reavis and Van Dyke, the evidence shows that meetings of nonathletic activities were held at weekly intervals in 28.6 per cent of the schools, at intervals which vary with the activity in 40.2 per cent of the schools, and according to other practices in the remainder of the schools. Almost 60 per cent of the junior high schools have the weekly interval, a practice which is likewise more common in large high schools than in small ones.[3]

This study revealed that the average length of club meetings and programs is greater in the case of schools in which the meetings are held outside the school session than in the case of schools in which the meetings are held during the school session, the average length in minutes being 64.3 and 47.1, respectively.[4] When meetings are held outside the school day, an advantage in flexibility for different organizations and different programs is no doubt attained.

The issues of time of day and length of meetings in the administration of extracurriculum activities must be answered by every school in the light of its own conditions and by experimentation, but the experience of one principal in a six-year school of 500 pupils is worth recounting briefly. R. D. Shouse[1] reports trial of an activity period of 35 minutes in mid-forenoon, which for several reasons did not work out very well.

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[1] B. Lamar Johnson, "Registration and Schedule Making," Part II of *The Program of Studies.* National Survey of Secondary Education, Monograph No. 19. United States Office of Education, Bulletin No. 17, 1932.

[2] *Ibid.*, p. 320.

[3] *Op. cit.*, p. 63, Table 39.

[4] *Ibid.*, p. 103, Fig. 14.

> The chief objection to the morning period was that the work of most of the clubs was not suited to a period of set length. The orchestra needed at least an hour for practice. Clubs could not make excursions. The Boy Scouts, the Girl Scouts, the athletic clubs, the band, the glee clubs—in fact, nearly all the clubs found that the definite time limit interfered with their proper functioning and consequently pupils lost interest. In addition to this important objection, there were two other objections to a morning period. First, the transition from classroom work to club work and back again to classroom work involved some loss of time and momentum. Second, the middle of the morning was the best time for the pupils to do mental work. Since the major part of the club work was manual, the best part of the school day was not used to the best advantage.[2]

Shouse tried placing the extracurriculum period at the end of the day—from 2.35 to 3.10—and reported that the objections to the morning period were overcome and that other anticipated difficulties did not materialize. This arrangement virtually gave a period of indefinite length without interfering with the scheduled work of the classroom, so that the desired flexibility was attained. Staffs of the school publications and athletic teams, as well as departmental clubs, all began their work at 2.35 and continued as long as the nature of the activity demanded. Many parents at first asked that their children be excused at the end of the last class period, but they withdrew their requests and readily co-operated when the plan and its purpose were explained to them. As for the pupils:

> When staying until 3.10 P.M. had become habitual it did not seem a hardship to stay. . . . We were also surprised to find that the element of fatigue did not appreciably affect the activity period. The natural play period for most children is after school hours, and the club work has profited by the infusion of the play spirit and the spontaneous interest on the part of the pupils.[3]

These experiences of one school in seeking the optimum time of day for scheduling the extracurriculum period would seem to have more than local interest because of the nature of the advantages and disadvantages stated.

The scheduled period is commonly considered to have an important inference for participation, namely, that all, or virtually all, pupils and teachers will be engaged in extracurriculum activities. The instituting of an activities period has often meant a violation of the principle of administration which is numbered 13 in Figure 6 (page 139) and stated as "Gradual rather than sudden development." It has meant the employment of some pressure by administrators to induce all pupils to participate, thus violating the spirit of spontaneity and pupil initiative. Sometimes schools have found it necessary to retreat from a position of such advanced recognition of the value of activities. At any rate, the establishment of a part of the scheduled school day especially for the extracurriculum is a momentous step, one not to be taken without careful preparation, and one which must invariably raise many problems. That pupils should elect activities as they are required to elect courses is incompatible with the spirit of extracurriculum activities. Shouse says of his pupils and of the practice in his school in this connection: [1]

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[1] "High-School Clubs," *School Review*, XXXVI (February, 1928), 141–146.

[2] *Ibid.*, p. 142.

[3] *Ibid.*, p. 143.

> Many pupils do not know what clubs they wish to join, or they do not wish to join any club. They are like many adults who cannot be interested in any kind of movement. The libraries are used for them and for pupils who have become dissatisfied with one club and contemplate joining another. In the library an effort is made to determine the pupils' interests and, if possible, to get them started in a club which they can enjoy.

The scheduled period must be administered with due regard for the preservation of pupil initiative in the extracurriculum.

Practices in administering sponsorships. Responsibility for guiding extracurriculum activities must rest on virtually all members of the high-school staff. The number and variety of activities, the hoped-for universal participation of pupils, the scheduled activity period—these are the conditions which necessitate a large number of faculty sponsors, possessing a wide range of training and aptitudes. It follows that the success of a comprehensive program must depend largely on the realization of a number of conditions pertaining to the sponsorships. In the first place, the entire staff must sense the educational significance of the extracurriculum as a whole, and each member must appreciate the value of such activity or activities as he sponsors and be able to find pleasure in them. Secondly, the teachers should be assigned sponsorships which harmonize with their specific training and aptitudes, or activities will suffer from want of helpful leadership. Thirdly, the teacher must feel that there is essential justice to all in the distribution of the extracurriculum load and in the recognition of the time and effort which effective guidance of an activity entails.

[1] *Ibid.*, p. 145.

Marie Henninger[1] tested the attitudes of Pittsburgh high-school teachers by obtaining "yes" and "no" answers to certain questions. From 66 to 80 per cent of the teachers gave affirmative answers to the following questions:

> Do extracurriculum activities give students a stimulus that is not found in ordinary classroom work?
>
> Are extracurriculum activities better socializing agencies than curricular activities?
>
> Is it an obligation of the school to provide recreation of a satisfactory but elevating kind?
>
> Should a teacher encourage a student to participate in extracurriculum activities?
>
> Do extracurriculum activities afford valuable training in co-operation?

A large percentage of the teachers felt that extracurriculum activities, as administered, were not productive of certain values claimed for them, and a sizable minority of the teachers apparently were opposed to the activities program on general principles.

The cultivation of proper attitudes in the staff has been illustrated by Roemer[2] as carried out by the principal of a new junior high school. The main feature of the program was a series of half-day conferences of the entire school staff held at weekly intervals and guided by an expert consultant in extracurriculum activities. The teachers were directed and aided in definite study of significant problems between conferences.

Quite clearly, the problem posed in the paragraphs immediately preceding is one which would properly be treated at greater length in a book on high-school supervision, rather than one of administration as defined in Chapter I, since it bears on the leadership given the faculty in reaching a more adequate definition of their work.

Several researches have shown how widely distributed among high-school teachers are the responsibilities for extracurriculum leadership and how frequently the teachers lack preparation for the duties assigned them.[3] The inference they draw is that the administration of the extracurriculum can be markedly improved if the teacher-training institutions will more adequately prepare teachers to assume such duties.

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[1] Editorial quotation from *Pittsburgh Schools* in *School Review*, XLII (January, 1934), 9–11.

[2] Joseph Roemer, "Introducing a Program of Extra-Curriculum Activities in a Junior High School," *School Review*, XXXVI (September, 1928), 516–521.

[3] Earl W. Anderson, "Extra-Curricular Duties," *Educational Research Bulletin* (Ohio State University), VIII (October 9, 1929), 315–317.

W. W. Charters and Douglas Waples, *The Commonwealth Teacher-Training Study*, p. 21. University of Chicago Press, 1929.

R. H. Eliassen, "The Teacher and Extra-Curriculum Activities," *School Review*, XL (May, 1932), 364–371.

The assignment of sponsors is an obligation which rests generally on the principal, being exercised by him directly or through approval of nominations by subordinates.[1] If the program is to be given proper educational direction and if the load of teachers is to be equalized, such control by the principal is necessary. His problem will be the more easily solved if qualification for extracurriculum guidance is carefully considered in the process of selecting and employing teachers. It is demonstrated in Chapter IX that greater attention should be given to the careful matching of teachers with their teaching positions; and extracurriculum capacities should also be matched with extracurriculum duties.

Practices in rewarding sponsors so as to encourage their acceptance of responsibility vary with schools and with the activity. In his canvass Masters [2] found that:

> Of the 89 schools . . . , 18 allow additional compensation for athletic coaches, 5 for music, 4 for dramatics, 3 for senior class, 2 for debate, 1 for each of the following: senior play, student council, annual, band, honor societies. Thirty schools favor allowing such compensation, while 38 oppose the plan.

In the study of athletics included in the National Survey of Secondary Education [3] it was found that in more than half the schools studied the average salary of coaches is higher than that for other teachers.

Another method of reward occasionally employed is the reduction of teaching load. For the most part, however, it is probable that no special recognition is given. Some assistance in direction of the extracurriculum program is usually expected of all teachers as part of their regular work, and their success in meeting such responsibilities figures in the principal's rating of their general value to the school. When the burden of sponsorship which a teacher bears is exceptionally heavy, adjustment of the teaching schedule should be made. Such recognition is preferable to an extra-salary provision. Additional salary is given on the assumption that the teacher works overtime. Either he does that at the expense of health and recreational activity or he neglects part of his other work, such as preparation for his classes or the correction of papers, and neither of these alternatives is desirable.

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[1] Reavis and Van Dyke, *op. cit.*, p. 59, Table 37.

[2] J. G. Masters, in *Extra-Curricular Activities*, Part II, Twenty-fifth Yearbook of the National Society for the Study of Education, pp. 40–41. Quoted by permission of the Society.

[3] P. Roy Brammell, *Intramural and Interscholastic Athletics*, p. 100. National Survey of Secondary Education, Monograph No. 27. United States Office of Education, Bulletin No. 17, 1932.

Practices in financial administration. The problems of financial administration are no less important than other administrative problems of the extracurriculum, and they are deserving of special consideration in any comprehensive treatise on secondary-school administration. The treatment of the subject in this book will be found in Chapter XVI in a substantial section entitled "Financing Extracurriculum Activities."

PRACTICES IN THE ADMINISTRATION OF CERTAIN ACTIVITIES[1]

Publications. That publication looms large in the high-school pupil's world is evident from data collected by Nixon from principals of the North Central Association of Colleges and Secondary Schools. On the basis of 210 responses to his inquiry, he found 185 schools publishing an annual, 129 a high-school paper, and 32 a high-school magazine—a total of 346 different publications, or approximately 1.65 per high school.[2] Costs were found to vary considerably, largely because there was no doubt a wide variation in the size of the high schools represented in the canvass. Nixon estimated an average yearly expenditure of approximately $2000 per school on publications.[3]

Nixon's survey took no account of the handbook, in the preparation and distribution of which high-school pupils commonly play a large part. Of the school publications, the handbook is the least pretentious and the least expensive. Its significance for the orientation of new students is presented in the chapter on the guidance program (Chapter VI).

The magazine has in recent years come to be an outlet for creative writing. Undoubtedly it has high value for its staff and contributors but less value for the school and the community. Where a magazine is attempted, the close co-operation and support of the English department should be regarded as a prime requisite, for it is in the English classes that pupils with literary gifts should be found and stimulated. Since the number of such individuals is limited, a magazine appearing at regular monthly or quarterly intervals seems feasible only in large high schools.

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[1] The administration of athletics is discussed in the chapter on the health program (Chapter IV).

[2] O. F. Nixon, "The Cost and Financing of Student Publications," *School Review*, XXXI (March, 1923), 204.

[3] *Ibid.*, p. 208.

The annual serves primarily as a historical record, a memory book, and it is, or should be, of interest to the entire school body. Fleenor, after analyzing the content of 100 annuals representing high schools of varied enrollment, expressed the opinion that seniors and boys' athletics received excessive emphasis for a publication intended to reflect the broad interests of the whole school.[1] If a yearbook is to be published, the principal must select a capable sponsor who will see that the school as a whole is creditably represented in the book and that the tone of the book is such as to inspire the readers with a wholesome pride in their school membership. To publish the usual school yearbook is a project of considerable magnitude, involving opportunities for experience in business management, journalism, and artistic production. It must be planned long in advance.

Financing a yearbook is a serious problem. Commonly, advertising is solicited from local merchants as a means of meeting a quarter to a half of the cost of production. In many communities businessmen come to regard such advertising as a form of charity. Perhaps they are right. Fretwell relates that in Cleveland the businessmen and the board of education referred to the Cleveland Advertising Club for their judgment on the value of advertising in school publications:

> . . . with the result that this club decided that the school newspaper was "an actual asset to advertisers whose line of business permits them to use it intelligently," but that "the annual has no place in the advertising appropriation of an efficiently managed advertising department." [2]

Garretson [3] describes an interesting experiment, born of the depression, for the production of a yearbook at greatly reduced cost and by methods calculated to achieve larger educational values than usual for the staff. The procedure involved printing by mimeograph, production of art work by use of the mimeoscope, photographing by the pupils themselves with the use of a photographic attachment for the layman's kodak, and development and printing of the photographs on blueprint paper by pupils in the classes in physics. Collaboration of the English, art, commercial, manual-arts, home-economics, and physics departments is indicated. Space forbids presentation of Garretson's detailed description, but the reader who will consult his article is likely to carry away the conviction that a yearbook in which pupils may justly take pride can be produced as a series of legitimate curriculum projects of sound educational value.

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[1] Leonard A. Fleenor, "The Content of High-School Annuals," *School Review*, XL (June, 1932), 448.

[2] Elbert K. Fretwell, *Extra-Curricular Activities in Secondary Schools*, p. 365. Houghton Mifflin Company, 1931.

[3] Oliver K. Garretson, "Less Expensive Annuals," *School Review*, XLII (February, 1934), 118–120.

The school paper is the publication most favored by authorities. They feel that it has larger values for the participating pupils and more significance for the life of the school than do the annual and the magazine. The newspaper serves as a medium of communication and thus promotes the mutual understanding of the members of the group. The cohesion, the community of feeling and ideals which is characteristic of any social group is augmented by the school paper, just as the same trait in the city or national groups is strengthened by the press. Guided by a sponsor who sees the paper in this light and who is possessed of high ideals, it can be a substantial force in the molding of school sentiment and the crystallizing of opinion along right lines.

Another purpose served by the newspaper is that of motivation of pupil writing. The natural expressional situation which it affords vitalizes English work. It is undoubtedly more helpful in this particular than either the annual or the magazine, because the simple communication of news about realities appeals to a much larger proportion of pupils than does the production of imaginative literature, such as the magazine requires.

In the case of the paper, as of the other publications, how to extend the opportunity for participation to any considerable fraction of the student body in a high school of medium or large size is a problem.

Bennett[1] sent an inquiry to the pupils of eighteen high schools of western Pennsylvania issuing four-page, printed, bi-weekly papers, to find out what categories of content interested them most. His survey showed that humor ranked the highest, followed by athletic news, personals, illustrations, social news, and news stories, in the order named. Editorials ranked low in interest. The implications of such findings are not easy to state. Should pupils be given what they want or what is good for them? Presumably pupils' interests must be recognized or the paper will not be successful. Presumably, also, the paper must be used to cultivate more refined and discriminative interests, because it is an educative medium.

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[1] Earl E. Bennett, "What High-School Pupils Read in School Papers," *School Review*, XL (December, 1932), 772–780.

Another study of readers' interest is that by Snyder.[1] The school paper at Ashtabula, Ohio, is a four-page weekly, published and distributed free of charge to each of the 1400 homes in the school district. The journalism class prepares the copy, and the paper is printed in the school printing shop, apparently being linotyped outside the school, a cost which is met by the advertising. Snyder submitted to pupils, to parents and patrons, and to teachers a check list of the ten main topics of the paper and asked for indication of whether each topic was "usually read," "sometimes read," or "never read." His tables show wide interest in the paper, although with some decided differences between the groups. Parents and patrons read the paper more intensively than did the pupils, and their consistent reading of advertisements gave assurance that such advertising could not be considered mere charity. The study makes it clear that a school paper may serve as a valuable link between school and community.

In view of the difficulties which are often encountered in financing a paper and achieving the widest possible distribution of it, the practice in Ashtabula may be considered highly suggestive. Another example of practice in meeting these problems is that afforded by the experience of Coeur d'Alene, Idaho.[2] After considerable experimenting with a school paper, arrangements were made with the editor of the local city paper to give the high-school pupils in journalism one page of the paper every Wednesday for the publication of high-school and elementary-school news. The page carried a distinctive caption. That the class in journalism profited by virtue of their contact with a small city newspaper and that affairs of the school were followed by townspeople with far more interest than when the school published a separate paper is the opinion expressed by those who guided the experiment.

Of the three main types of school publications, the one deserving first promotion in the extracurriculum program is the newspaper. It is to be hoped that in the future more small high schools will turn their energies to the development of a serviceable news sheet in preference to the annual. Junior high schools, less bound by tradition than senior or four-year high schools, are adopting the newspaper as their form of publication activity.

Clubs. One of the interesting recent developments in extracurriculum activity has been the rapid rise of school clubs. These organizations, springing up in infinite variety, are quite definitely a product—at least in their present profusion—of the modern attitude of the educational profession toward the extracurriculum. When the educative possibilities of the pupils' own enterprises came to be recognized, it was felt that all pupils should enjoy those advantages. The old extracurriculum was restricted to relatively few lines of activity and to the pupils who were proficient in those lines. To meet the new felt need, it seemed desirable to establish organizations in such number and variety as to correspond with the numbers of pupils and their varying interests. Therefore administrators in many schools have inaugurated wide-ranging club programs. A definite goal has often been the inclusion of every pupil in the school.

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[1] Troy A. Snyder, "What Does the Community Read in the School Paper?" *School Review*, XLI (November, 1933), 693–699.

[2] Reported editorially in *School Review*, XXXIX (March, 1931), 169–171.

The types of interest and activity which school clubs represent may be gathered from the extended list given, with frequencies of appearance, in the monograph of the National Survey by Reavis and Van Dyke. The categories into which they divided the nonathletic organizations which they found have already been quoted, with illustrations of each. (See page 141.) In Chapter VI, in a section considering the significance of the extracurriculum for guidance, there is a list of 19 clubs taken from an alphabetical list of 60 or 80 clubs which existed in one junior high school. Any worthy activity, related to the curriculum or wholly without the curriculum, involving closely co-ordinated group effort or carried on as an individual project seems to warrant the organization of a club. It is the *method* of the activity rather than its obvious outcomes which discerning advocates of school clubs claim is the distinctive educational advantage of a club program. The true club, they say, is a group of pupils with a common purpose or interest. In pursuit of that purpose or interest, they practice mutual helpfulness and tolerance, they gain experience in making their own decisions, and they grow in capacity for self-direction and social living.

A recent survey of administrative practices in connection with the club program is that by Gruhn, based on 210 three-year junior high schools in Eastern and Middle Western states.[1] More than four fifths of these schools reported that they were attempting a co-ordinated and organized club program. A wide diversity of practices in the stimulation of participation was evident, with about 40 per cent requiring participation. The home room was the chief agency for advertising the club program to the pupils, but more than half of the schools used assembly talks and programs, and less frequent use was made of the handbook, bulletins, and exhibits of club work.

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[1] William T. Gruhn, "The Administration of Club Activities in the Junior High School," *Elementary School Journal*, XXXV (October, 1934), 107–114.

For selecting club members many schools reported using several plans, depending on the type of club. A common practice is to have each pupil indicate two or three choices early in the year, pupils then being assigned to the club of their first choice if possible. Only a few schools permit present club members to select the new members. Approval by the sponsor is usually required for admission to a club that demands some special ability or previous achievement. In regard to specific scholarship standards for club membership, only 24 per cent of the schools reported such a requirement for any of their clubs. A few schools do not admit seventh-grade pupils to clubs. There is little agreement with regard to the number of clubs that a pupil may join; 30 per cent of the schools have no limitation, while 34 per cent limit the pupils to one club, 16 per cent to two clubs, and 8 per cent to three clubs. Frequently an automatic limitation is provided by scheduling all club meetings during the same period.

Some of these practices are well-advised, according to extracurriculum principles thus far expressed, and other practices seem to violate those principles. That school administration should foster a co-ordinated and organized club program seems desirable, but to require participation on the part of every pupil seems likely to violate the spontaneity which is the life spark of extracurriculum activity. It is undoubtedly true that principals have at times adopted a club program hastily, made a place for it in the daily schedule, and without preparation of either pupils or teachers for the innovation announced that every teacher must sponsor a club and every pupil must become a member of one. Such imposition cannot assure successful club programs.

To establish a sound foundation for a club program there must be an initial period of study by the faculty in order that they may develop an understanding of and sympathy with the program as a whole. Guidance of the staff in the acquisition of this desired perspective is a challenge to the principal's skill as a supervisory leader rather than as an administrator. From the faculty should emanate a plan of action. Each member, furthermore, should take account of his own interests and decide what club he desires or is willing to sponsor. For introducing the program to the pupils, a good practice seems to be the distribution of mimeographed sheets showing the entire club offering—each club being described as to its probable activities and any necessary qualifications for membership. There should be held one or more periods of well-directed discussion in the home room to aid the pupils in making wise choices.

Fretwell suggests that: [1]

> Further exploration can be provided for by setting aside a definite period in which all pupils go to the club of their first choice for ten minutes to meet with the adviser and discuss what the club can and probably will do. During a second ten-minute period, the pupils can go to the club of their second choice; and in still another ten-minute period, to the club of their third choice. At the end of thirty minutes, when the pupils are back in their home rooms, . . . they can record their first, second, and third choices and give the reasons for each one. From these ballots the club lists can be made up. As a result, on the basis of first choices, some clubs may have too many members and others too few. Some clubs, therefore, may organize additional sections, and some clubs may be dropped. In some cases pupils may be requested for that semester to go into the club of their second choice.

The above discussion will be recognized as bearing on the situation of a school which has few or no clubs and in which it is desired to inaugurate a whole-school program of clubs. After such a program has been started it is to be expected that groups of pupils from time to time will desire to start new clubs. It is desirable that some definite procedure be instituted for hearing, weighing, and denying or acceding to such desires. The student council, a special faculty committee, or the principal should hear such petitions and be empowered to charter new organizations formally.[2] The chartering authority should also be authorized to revoke charters.

Universal participation in club activity may well be the goal of a club program, but it will scarcely be attainable unless coercion is employed. Since any form of compulsion is out of keeping with the spirit and method of the extracurriculum, reliance must be placed on a policy of making the club reputation so good that it is attractive to the pupils. Those who do not join must be provided with adequate opportunity for study while clubs are meeting. A wise policy would be to commit the nonjoiners to the guidance of one of the most skillful, understanding members of the staff. Such a person, by analyzing the individual pupil to determine his special interests and needs (and perhaps his maladjustments) and by winning the confidence of these pupils, may help them to find a satisfying club. At any rate, the non-joiners should not be passed over lightly. In all likelihood they are the pupils who most seriously need the socializing influence of the club experience.

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[1] *Op. cit.*, pp. 283–284.

[2] See Harry C. McKown, *School Clubs*, pp. 35–41. The Macmillan Company, 1929.

Social recreation. As indicated by the extent of its treatment in educational literature, one might judge that pupil activities in social recreation are among the least significant of those which they initiate. It seems that the negative attitude of school administration has persisted more markedly toward the purely social activities than is the case with athletic, literary, and other activities. In Figure 6, page 139, it will be observed that one of the principles (15) that should govern the administration of extracurriculum activities is that all organizations should have a "higher aim than sociability only." While there is no intent here to question the value of such a policy, it is our purpose to point out the desirability of a constructive attitude toward social recreation based on a recognition of the large educational possibilities afforded by it. Allowed to take care of itself or merely hedged about with a few reservations, the social life of the school may be a thing of harm, developing snobbery, coarseness, and undemocratic attitudes in pupils. Given positive and helpful direction, it may be the most natural medium by which pupils acquire good manners, social ease, social accomplishments, and democratic ideals. Here are a host of traits which are essential assets for the individual and for society. They bulk large as conditioners of human happiness. They have but little curricular recognition except in that species of secondary school now almost extinct, the girls' "finishing" school. To leave the realization of these objectives to chance and to pass all responsibility for them to such other social institutions as the home and the church is assuredly a mistake when it is realized that the school groupings of children are certain to seek outlets for natural tendencies to social recreation.

In a number of high schools—especially large schools—these natural tendencies of pupils have given rise to the organization of fraternities. While these organizations appeal to youth, as to adults, because of the element of secrecy and assumed exclusiveness, their establishment is probably due in part to repression of social activities or to their arbitrary and unfriendly supervision by school authorities. It is so generally felt that fraternities among high-school pupils work more harm than good—lowering scholarship, introducing group loyalties which run counter to school loyalty, developing snobbishness—that a number of states have attempted to legislate them out of the public schools. One high-school principal, as a result of his experience in two schools, held, however, that the best means of eliminating fraternities is through friendly education of the leaders, especially alumni, to see the ill effects on the school, thus inducing a voluntary disintegration of the fraternity groups. He also promoted the development of democratic school clubs to serve as counter-attracting avenues of expression for gregarious tendencies.[1]

Among other frequently observed results of unguided social recreation in the high school are the following: an undue amount of time spent in such activity; the dominance of the socially assertive pupils—so that the unsocial pupils are not socially developed; the setting of standards in dress and in expenditures for social events that make participation prohibitive or disproportionately expensive for many of the pupils; the exclusive employment of a form of social diversion in which many cannot participate; the failure to employ a variety of intellectual and physical resources in entertainment.

The following statement of point of view and of administrative technique for controlling the social recreation of the school seems well calculated to obviate these difficulties and to give educational direction to pupils' social tendencies: [2]

> Parties have no place in a school unless they contribute positively to the growth of the pupils. . . .
>
> A party can be managed so that it is in reality a project in instruction. . . .
>
> Parties may be supervised directly by the faculty sponsors of the various activities. It is feasible, however, for the principal to appoint a faculty committee on parties. Legal regulation and constructive action should be the slogan of such a committee. First, it should publish a set of rules to govern all student parties. Although these rules would be determined largely by local conditions, the following are suggested: All parties sponsored by the school should be held on Friday or Saturday in the school building. There should be a stated number of parent and faculty chaperones at each party. . . . All school parties should close at a stated time, which should be well advertised in the community. All expenses of the party should be borne by those participating, and the fee should be nominal—not to exceed twenty-five or fifty cents a person. Under no circumstances should money be taken from the treasury of an organization to defray party expenses. Only bona fide members of the student body should be allowed to attend school parties. The number of parties given each

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[1] Glen O. Perkins, "The Elimination of Fraternities and Sororities in the Tucson High School," *School Review*, XXXI (March, 1923), 224–226; and "High-School Fraternities Again," *School Review*, XXXIV (April, 1926), 277–280.

[2] Gertrude Jones, "Parties as Projects of Instruction in High Schools," *School and Society*, XVII (June 23, 1923), 696–697.

> year by an organization should be limited. All freshman and sophomore class parties should be held in the daytime. One evening party a year for the juniors and two for the seniors is a fair distribution. Each club might be permitted to give two evening parties a year.

Miss Jones further suggests centralized control by a faculty committee, which would operate also to guide and stimulate instead of merely setting up strictures.

If a party is to be an instrument of democratic education, conditions ought to be such that all members of the group can be present and participate. Such a principle means that the cost should be so low that the poorest member can afford to attend. It means that the entertainment should be such that all or practically all can participate. It means that democratic dress will be worn so that no member will be kept away or suffer embarrassment in attendance. It means that the party will be given at a time of day when chaperonage or escort to and from the event are not obstacles to be overcome. Probably the type of party which best fulfills these conditions is an afternoon party at which the entertainment consists largely of different forms of large-group games. For senior-high-school pupils, dancing may well form a part of the program at some parties, because even though some cannot participate, they are thus given an opportunity to learn. Parties which are held in the evening present a temptation for the more fortunate to exhibit themselves in types of clothing which the poorer members of the organization do not have; they also frequently make the attendance of many of the girls difficult or impossible. Many a senior-class evening dancing party is attended by fewer than half of the class, and the participants are those who need the social experience the least. Those who do not dance, those who feel bashful, unacquainted, and otherwise ill at ease socially, those who do not have party clothes, and those girls who were not "asked" remain at home and some of them are miserably unhappy. Such a party serves no educational end.

The school administrator must sense the educational opportunity in the natural inclination of adolescents toward social recreation. He must appreciate the high social values which may be realized from skillful direction of social play impulses. He must train his faculty to the same point of view, so that they will play appropriate parts in the guidance of social activities. Here, as in the cultivation of faculty attitudes toward the club program, is a responsibility which is supervisory rather than administrative, according to the working distinction made in Chapter I.

STUDENT PARTICIPATION IN SCHOOL CONTROL

Modern views of the control function. Control or government of the school was formerly looked on as wholly a condition essential to the realization of the instructional purpose. It was a condition imposed on the pupils by the teacher and by the administrative officers. Since the present century began, notable changes in the exercise of control and in our view of the nature and purpose of control have made considerable headway. In the first place, there has been a tendency to shift responsibility for school government to the pupils themselves. This was evinced at first in the establishment of forms of *student government* or *student self-government*, commonly involving the exercise of executive, legislative, and judicial functions by pupils in the establishment and maintenance of law and order. Because such a large measure of pupil self-direction did not prove feasible, we find the terms *student co-operation* and *student participation* more frequently employed in recent years to express the part played by the pupils in achieving school discipline.

In the second place, we are revising our concept of the nature and purpose of control. Instead of viewing control merely as the achievement of environment favorable to learning, we are raising it to a point of identification with learning.[1] Recognizing that we learn by doing, that the best mode of acquiring habits and attitudes of social co-operation is to be placed in situations which compel the exercise of such habits and attitudes, we have come to see that our most effective medium of education is life within the school as a social institution, the actual participation in the processes and the control which characterize a true society. Dewey's conceptions of education as experiencing and of the school as a social institution [2] have induced us to integrate the control and instructional functions in our administration of the school. In harmony with these views it appears that to impose control on the pupil wholly from without is to deny him his most essential and effective learning experience, to nullify the educative influence of the school. It should be the purpose of the school to build up a power of self-direction in activities, which promotes the best interests of society. This can only be done through gradually imposing increasingly larger responsibility for ordering one's own conduct. The secondary school must recognize that its pupils go directly into adult society, and it must therefore give them such experiences as will build within them the discipline which adult citizenship implies.

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[1] See Pickens E. Harris, *Changing Conceptions of School Discipline.* The Macmillan Company, 1928.

[2] For an interpretation of Dewey's influence on the schools, see Jesse H. Newlon, "John Dewey's Influence in the Schools," *School and Society*, XXX (November 23, 1929), 691–700.

After this brief view from the angle of educational theory, it occasions no surprise to learn that a large majority of contributors to educational literature on student participation in the government of the school mention its value as training "for worthy citizenship through the development of co-operation, self-control, self-reliance, initiative, and responsibility"; that a considerable number claim that it establishes "better understanding, better spirit, and co-operation between students and faculty"; and that some mention its influence in developing "interest in schoolwork, school spirit, and school pride." [1] It will be observed that these values are largely coincident with those claimed for all extracurriculum activities, as shown in Figure 3, page 131.

Principles and practices in the establishment and operation of pupil participation. A number of the principles to be observed in the institution of pupil participation in control are clearly implied in the views just stated. They are all included in the following summary of "essential principles" formulated by Dustin on the basis of his canvass of 57 schools practicing some form of co-operative control and his personal investigation in Cleveland high schools: [2]

> (1) The principal must be thoroughly in sympathy with the idea.
>
> (2) There must be a demand for the plan from the pupils.
>
> (3) Pupils and faculty must have a clear understanding of the plan, its scope and limitations. A distinction between co-operation and control of the school must be understood by the pupils and the faculty.
>
> (4) The procedure [in development] should be slow, the pupils being prepared for each successive step.
>
> (5) The attitude of the faculty should be one of sympathy.
>
> (6) Faculty advisers should be carefully selected.
>
> (7) A carefully defined constitution, providing the right basis for the selection of pupil representatives, should be adopted.
>
> (8) It is necessary to create within the student body an atmosphere of confidence in the school council.
>
> (9) Very close guidance and advice should be provided.
>
> (10) The pupils should be given something definite to do. . . .

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[1] See Earle Rugg's summary in *Extra-Curricular Activities*, Twenty-fifth Yearbook of the National Society for the Study of Education (1926), Part II, Chap. XI, p. 129.

[2] C. R. Dustin, "An Investigation of Pupil Participation in Government in Secondary Schools," *School Review*, XXXIV (June, 1926), 439–440.

(11) There must be constant cordial co-operation and constructive criticism on the part of the entire faculty.

It is apparent from the above statement that a spirit of mutual good will and helpfulness is more important than a plan of organization and accordingly should be carefully fostered. As Dustin further says: [1]

> A successful scheme requires a democratic organization of the teaching staff of the school. The principal must first realize the meaning of democratized education. Teachers must also democratize their teaching and classroom management. Autocracy and democracy will never co-operate to make a democratic form of government a success.

Significant in the maintenance of the spirit of co-operation is the care with which the principal exercises his veto power on acts of student governing agencies. While he must retain that prerogative in view of his responsibility for the conduct of the school, he must be sparing of its use or students will feel that their participation in school control is of no real consequence.

Ringdahl's investigation into practices concerning student councils [2] is indicative of the status of pupil participation in school control. A questionnaire sent to 250 representative high schools with enrollments ranging from 500 to 6000 brought replies from 179, of which 123, or slightly over two thirds, reported having student councils. The schools reported a range of from 1 to 23 as the number of years their councils had been in existence, with a median of 5.25 years. The number of members in the councils varied from 5 to 135, with a median of 22.8. There seemed to be no direct relationship between school enrollment and the number of members in the councils. The basis of selection of council members showed the following diversity: "By classes, 38. By home rooms, 31. At large, 12. Presidents of organizations, 11. Home room and classes combined, 6. Organizations and classes, 6. Other combinations, 6." Councils met once a week in 49 schools, once in two weeks in 35 schools, and once a month in 21 schools. Their powers varied widely, but those most frequently mentioned were the regulation of extracurriculum activities, the control of traffic, corridors, and lunchroom, the formulation of rules of conduct, and the control of study halls.

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[1] *Op. cit.*, p. 433.

[2] N. Robert Ringdahl, *Student Councils in City High Schools*, City School Circular No. 4, 1927–28. United States Bureau of Education.

The one example of a plan of pupil participation in school control which may be cited here is that existing in the Gladstone Junior High School, Pittsburgh.[1] Most plans involve a student council as the only governing body. Gladstone started with a council, but gradually developed a cabinet and a court, so that it now has three distinct departments—legislative, executive, and judicial. The council is composed of the presidents of the home rooms and the activity director as faculty sponsor. They legislate and revise regulations every semester as needed. They learn how to preside in their home rooms. The cabinet has 24 members—4 elective school officers, 10 department heads who direct squads in seeing that the regulations regarding traffic, safety, sanitation, lunchroom, and so on are enforced, and 10 members in training. The activity director is their sponsor. The court grew out of a felt need for having infractions of school regulations tried before a body which was independent of the legislative and administrative authorities. It consists of a faculty member, appointed by the principal, as chief justice, and 8 associate justices, who are pupils, appointed by the cabinet subject to the approval of the activity director, the chief justice, and the principal. Cases are sent to the court by the various squads which are authorized by the council to do so.

The successful operation of pupil participation with an organization so elaborate as that just described is only possible under continuous thoughtful guidance. The schools which have a full-time activity director, as does Gladstone, are few in number. With or without such personnel, the principal's problem is the cultivation of such attitudes in faculty and pupils that the participation of pupils in the direction of their affairs and their conduct may be constantly growing.

The recognition of the values to be gained from pupil participation in school control, as from the extracurriculum in general, is evidence that we are deserting the authoritarian principle in education in favor of self-activity as the mainspring of learning. The transition is not easy. Teachers and principals in varying degree are deeply possessed of authoritarian attitudes. They must recognize the new way. They must recognize, also, that the new way does not call for abdication of responsibility. Rather, it calls for leadership in more subtle forms, the cultivation of an authority of reason to supplant the outmoded authority of position.

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[1] Marie R. Messer, "The Student Court in the Junior High School," *School Activities*, VII (February, 1936), 3–5. Additional understanding of the plan was gained by interviewing the author.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. For any high school to which you may gain access for study, survey the extracurriculum program as a whole or in some special phase.
2. From what source should a plan for limiting participation in extracurriculum activities arise? What would be proper procedure in drawing up and effectuating a plan?
3. What will be the relation of the student council with such bodies as the board of extracurriculum activities shown in Figure 7 (page 146)? Can the two groups be merged to advantage?
4. Should an effort be made to have pupils enter activities which do not interest them? If so, illustrate the circumstances and the means.
5. For any high school you know, ascertain the facts regarding the distribution of extracurriculum responsibility among the faculty and consider them in relation to the distribution of the teaching load. Criticize constructively.
6. Through interview or questionnaire gather estimates of the time-expenditure entailed in the sponsorship of various activities.
7. Consider the phenomenon of school strikes. What are the underlying causes? How can they be prevented?
8. By inquiry of teachers or pupils determine for several schools the cost to a high-school senior of extracurriculum life.
9. Make a special study of one of the classes of extracurriculum activities listed on page 141 which has not been dealt with in this chapter.
10. To what extent and in what particulars should the extracurriculum be financed by the board of education? Are the activities likely to be more or less educative with extensive support from the board?
11. To what extent should scholarship be a prerequisite to participation in the various activities? Draw up a plan to express your convictions.
12. Investigate the various types of academic contests and give consideration to their value.

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NOTE. A useful list of "Selected References on the Extracurriculum" has been published in each April issue of the *School Review* beginning in 1933.

Chapter VI

Directing the Guidance Program

NATURE AND ORIGIN OF THE GUIDANCE FUNCTION

The guidance function defined. Probably a just criticism of some literature in the field of guidance is the failure of the authors to distinguish guidance from the all-inclusive task of education. The original concept of guidance was that of activity in aiding the individual to choose a vocation; it was early extended to include aid in the choice of educational opportunities; and more recently the terms *health guidance*, *civic guidance*, *personal guidance*, and *recreational guidance* have been freely used. From the descriptions of activities classified under these latter types of guidance, they may well be judged to partake more of the nature of training or development than of guidance.

Guidance will here be considered as services which contribute to the developmental purpose. The contribution is of a twofold character. First, for those activities of life, such as vocation, in which it is desirable to differentiate the training of youth, guidance is the service of distribution. Its purpose is to help the individual make a wise choice of the direction in which his development should proceed. Second, for all types of development, common and differentiated, guidance is the service of adjustment—adjusting the individual and the various elements of his environment so that his development may proceed with efficiency. Thus guidance stands in a facilitative relationship to the function of development.[1]

Guidance conditioned by democratic ideals. The objective of distributive guidance may be thought of as the matching of individuals with opportunities, so that persons will find themselves engaged in activities which are in harmony with their abilities and interests and so that the varied services which society needs will be most efficiently performed. In an autocratic society, such distribution may be authoritatively accomplished by some power superior to the individual. In

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[1] For an amplified statement of this definition of guidance, see Leonard V. Koos and Grayson N. Kefauver, *Guidance in Secondary Schools*, pp. 15–22. New York: The Macmillan Company, 1932.

American society, democratic ideals are judged to preclude such a method. The individual's right to choose for himself is held as one of the most precious of our possessions. Partly this view may be attributed to our tradition of individual liberty. Partly it must be attributed to our lack of plenary economic and cultural democracy, for it is this condition which fosters our strenuous insistence that the road to the top in politics, in business, in the professions, or in any line of human endeavor must always be open to the humblest. The inadequate rewards and the unsatisfying quality of the majority of the stations in our economic life are accepted because of the chance, however remote, to rise to a position of privilege.

These conceptions have a practical bearing on the administration of a guidance program. They rule out any activity which savors of dictation of choice of studies or career. Regardless of how sure the counselor may feel in his predictions that a given pupil cannot succeed in Latin or algebra, any apparent pigeonholing of the individual to shopwork is almost certain to be regarded as an infringement on his rights. Consequently, distributive guidance is limited to advice and information. Its spirit and method must be monitorial, not prescriptive.

Counts [1] has shown that high-school pupils are well aware of the differences in social status of occupations, and to such awareness he attributes their marked tendency to aspire to the professions. As long as the conditions of American life involve such disparity in occupational rewards as is now true, it seems impossible to expect pupils to enter without prejudice into the processes of their own discovery and self-appraisal. Distributive guidance, therefore, exercised within the framework of the ideal of individual choice and the reality of unequal occupational rewards, is unquestionably handicapped in the achievement of its end. There is, however, no alternative to the observation of these conditions.[2]

Guidance made necessary by changed conditions in society and in school. Fundamental alterations in our social and economic structure have given rise to the guidance movement just as they have also given rise to remarkable changes in school aims, curriculum, and equipment. Society has assumed a complexity which imposes ever larger burdens on the school as an agency preparing individuals to take their places in the existing social order. Helping young people to make a proper choice of lifework has of necessity become a social function because of the greatly widened range of opportunities and the increased difficulty of seeing them. In an agricultural society, occupational life is inseparably bound up with the home; the child views it and experiences it without the aid of any other social agency. This simple relationship has now disappeared for the majority of American children, and it must be compensated for by the erection of another device in the social structure, however artificial it may be.

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[1] George S. Counts, "The Social Status of Occupations: A Problem in Vocational Guidance," *School Review*, XXXIII (January, 1925), 16–27.

[2] For a more extended discussion, see P. W. Hutson, "A Dilemma in Vocational Guidance," *School and Society*, XXXVIII (October 28, 1933), 552–558; and "Guidance Faces the New Deal," *School Life*, XX (September, 1934), 4, 21.

Within the school the broadening of the curriculum may be mentioned as a first factor which calls for the exercise of guidance. Instead of one narrow path, a network of interlacing highways confront the present secondary-school pupil in a modern school. Numerous forked-road situations call for his decision. The varied curriculum opportunities are intended to serve the varied needs, abilities, and purposes of the pupils. Attainment of this laudable end depends on an adequate program for aiding the individual pupil in his selection from the curriculum offering. A second factor is the heterogeneous character of the present population of our secondary schools. The effectual placing of the diverse individuals comprising present enrollments, in relation to educational opportunities, and later in relation to vocational opportunities, is a challenge which calls for techniques and training distinct from those employed in pupil development.

Complexity of school organization is a third factor which necessitates a guidance program. With increasing size, the schools have assumed many of the aspects which characterize large business and industrial organizations—each worker (teacher) a specialist and the pupils moving along corridors, as on a conveying belt, from specialist to specialist. Instead of making many and intimate contacts with a few pupils, the specialist makes a limited contact with many pupils—perhaps 200 for academic teachers and often much larger numbers for teachers of non-academic subjects.[1] Such a factory-like division of labor and such mass-production methods cause a tendency to focus educational energy on subjects rather than on the pupil. Intimate contact between teacher and pupil is lost. This peril of complex school organization we have come to speak of as "depersonalization." To combat it we have erected compensating features designed to diagnose the pupil and to co-ordinate and direct the work of the specialists for the individual pupil's advantage. We have designated someone to envisage the *whole pupil* and to be responsible for his well-rounded development. These features merit classification as *guidance.*

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[1] P. W. Hutson, "A Neglected Factor in the Teaching Load," *School Review*, XL (March, 1932), 192–203.

EVIDENCE OF THE NEED FOR GUIDANCE

Educational or Curriculum Maladjustment

Pupil failure. The need for guidance is to be detected by studies of the individual in relation to his environment. Is the school developing him as far as he is capable of being developed and in accordance with his potentialities? Is there complete harmony between the pupil's abilities and the work which he attempts in school? Are there impediments in his personality, character, physique, or in his home surroundings which operate to hamper his optimum development? Is the gulf between school and vocation so bridged that the passage is easy and persons are placed vocationally to the advantage of society and themselves? A few survey researches are introduced for the answers they afford to these questions and the consequent illumination of the tasks of guidance.

Logically, the question nearest to us is, "How well are our pupils adjusted within the school?" The comprehensive study of pupil failure made by J. F. Montague,[1] based on data from 304 widely scattered high schools, is one answer to that question. He showed that an average of 1 pupil in 4 was getting a record of failure. (See Figure 8, page 181.) The authority reporting the study estimated a failure rate of 10.2 per cent of the work attempted by all the pupils.

The money cost of pupil failure due to the instruction of repeaters has been figured many times and shown to be appallingly large. It is serious evidence of the inefficient functioning of the educational machine. There are some, also, who have pointed out the loss in human values through the circumstance of failure. The experience of success is essential to mental health, and it is unfortunate that pupils should attempt work at which they cannot succeed. In many communities these two factors—money cost and mental health—have operated to reduce failure rates. In so far as that has been accomplished by a simple lowering of the standard of passing rather than by effecting a genuine adjustment between pupils and educational activities, it may well be doubted if the principles of mental hygiene have been served.

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[1] Reported by E. E. Windes in *Trends in the Development of Secondary Education,* p. 11. United States Office of Education, Bulletin No. 26, 1927.

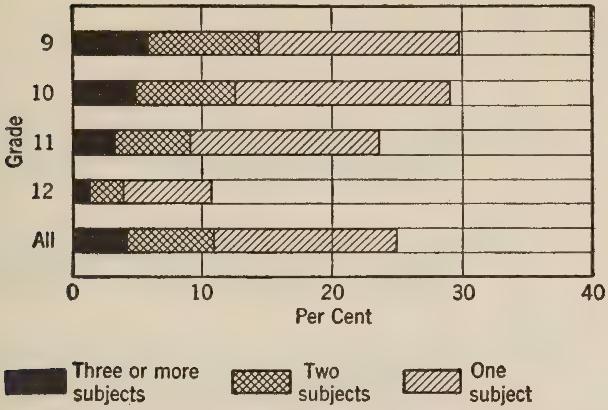

FIGURE 8. The Per Cent of Pupils Failing in 304 High Schools (*Adapted*)

Elimination. While early elimination from school has been greatly reduced, the problem is still one of serious proportions at the senior-high-school level. Figure 9, page 182, reporting evidence concerning public-school enrollments in Chicago, makes this fact clear and shows the trend toward increased schooling during the period since 1900—a trend which in itself has accentuated the problem of guidance. The various factors responsible for elimination have been made evident by a number of researches, of which that by Counts [1] is one of the best known. A summary and interpretation of the scientific literature relevant to this problem appears in a book prepared by Koos.[2] Low intelligence, inferior economic and social status, and a lack of cultural and educational traditions are all shown as factors which operate conjointly to limit the pupil's stay in school.[3]

Elimination, as also pupil failure, may or may not be a challenge to the guidance function. If the curriculum is so narrow and traditional that many pupils are forced out of school for lack of educational nutriment, the first problem is one of building an adequate curriculum. If, on the other hand, curriculum opportunities are adequate, elimination and failure are then signs that pupils have not selected the opportuni-

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[1] George S. Counts, *The Selective Character of American Secondary Education.* Supplementary Educational Monographs, No. 19. University of Chicago, Department of Education, 1922.

[2] Leonard V. Koos, *The American Secondary School*, pp. 114–146. Ginn and Company, 1927.

[3] For recent verification of these factors, see Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *The Secondary-School Population*, Monograph No. 4 of the National Survey of Secondary Education. United States Office of Education, Bulletin No. 17, 1932.

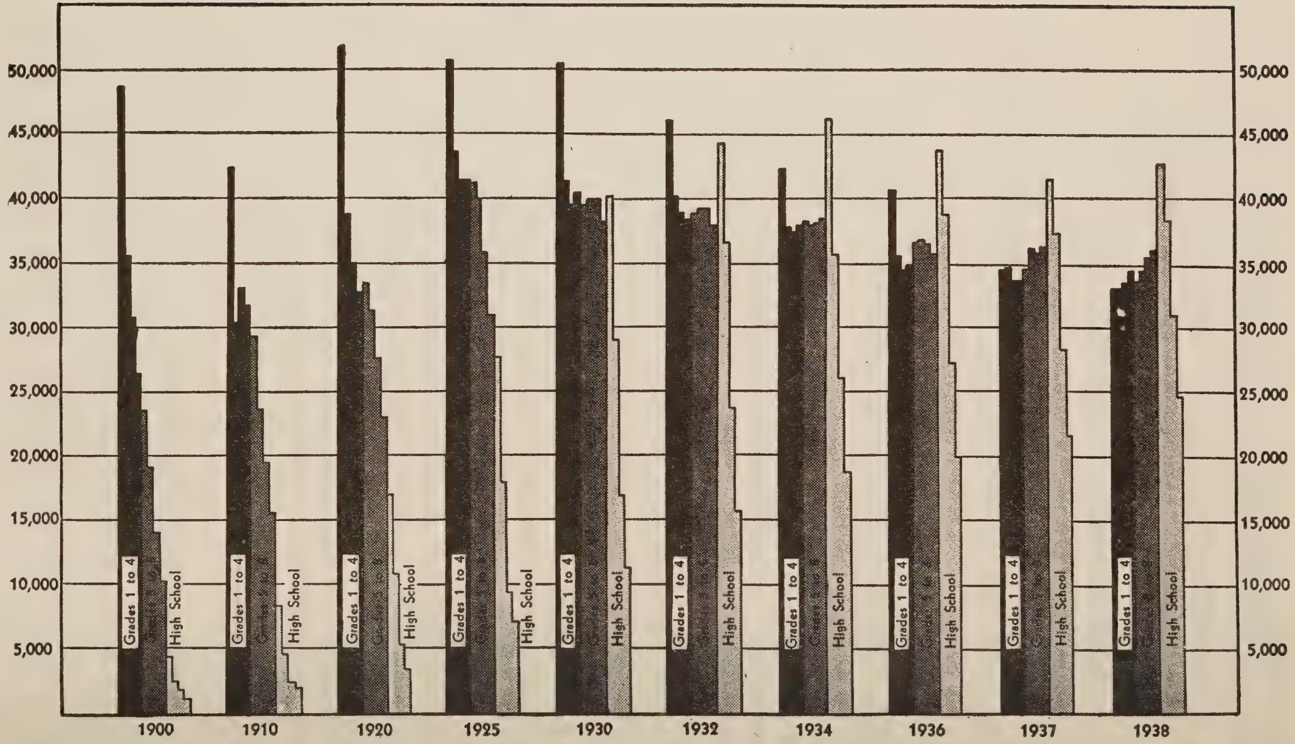

FIGURE 9. Number of Pupils in the Public Schools of Chicago 1900 to 1938 Inclusive[1] (Membership by Grades at Close of September Each Year)

ties appropriate for them, and the resultant problem is one of guidance. To inform pupils of the opportunities, to help them in understanding their powers and limitations, and to induce choice on the basis of adequate reasoning—these are the counselor's problems. As elimination is overcome, these problems become more difficult because of the increasing heterogeneity of the student body.

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[1] *Chicago's Schools* (Organ of the Citizens School Committee), V (December, 1938), 4.

Studies of college and university entrants. The decision to enter college or university is a momentous one. It is the more so because it is seldom made on the sole basis of whether or not one should seek the personal development possible from the experiences offered by higher institutions. The decision is usually bound up with intention to enter an occupation at the higher levels, especially the professions. The question here is, How thoughtfully is the college decision being made? Widespread knowledge of the elimination which occurs in the first and second years suggests that many make the college choice who should not do so.

Representative of a number of researches revealing the validity of the decision to enter college is Johnston's study, from which Figure 10, page 184, was taken.[1] On the basis of marks, the graduates of the Minneapolis and St. Paul high schools in the years 1922, 1923, and 1924 were divided into ten levels. The figure shows that the university entrants represented were almost a random sampling of their high-school graduating classes, although all should know that college work is more advanced and more difficult than that of the high school. It also shows the positive correlation between high-school and college success. In a good state of adjustment, college entrants would be selected from the upper levels of high-school scholarship and would include most of the students on these levels. As Dean Johnston said: [2]

> The funds now devoted to supplying teachers, classrooms, books, and laboratory equipment for those who are unable to profit by these things would provide for people who can use them to advantage and whose training would return dividends to the state. The object of such plans is not to *save* money, but to make better use of it, to get a better product from the universities, to make the world a better place to live in.

Such data as Johnston's challenge the high-school principal to build a program which will induce sound reasoning in the college decision.

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[1] J. B. Johnston, "Predicting College Success for the High-School Senior," *Vocational Guidance Magazine* (now *Occupations*), VI (April, 1928), 289–294.

[2] *Ibid.*, p. 294.

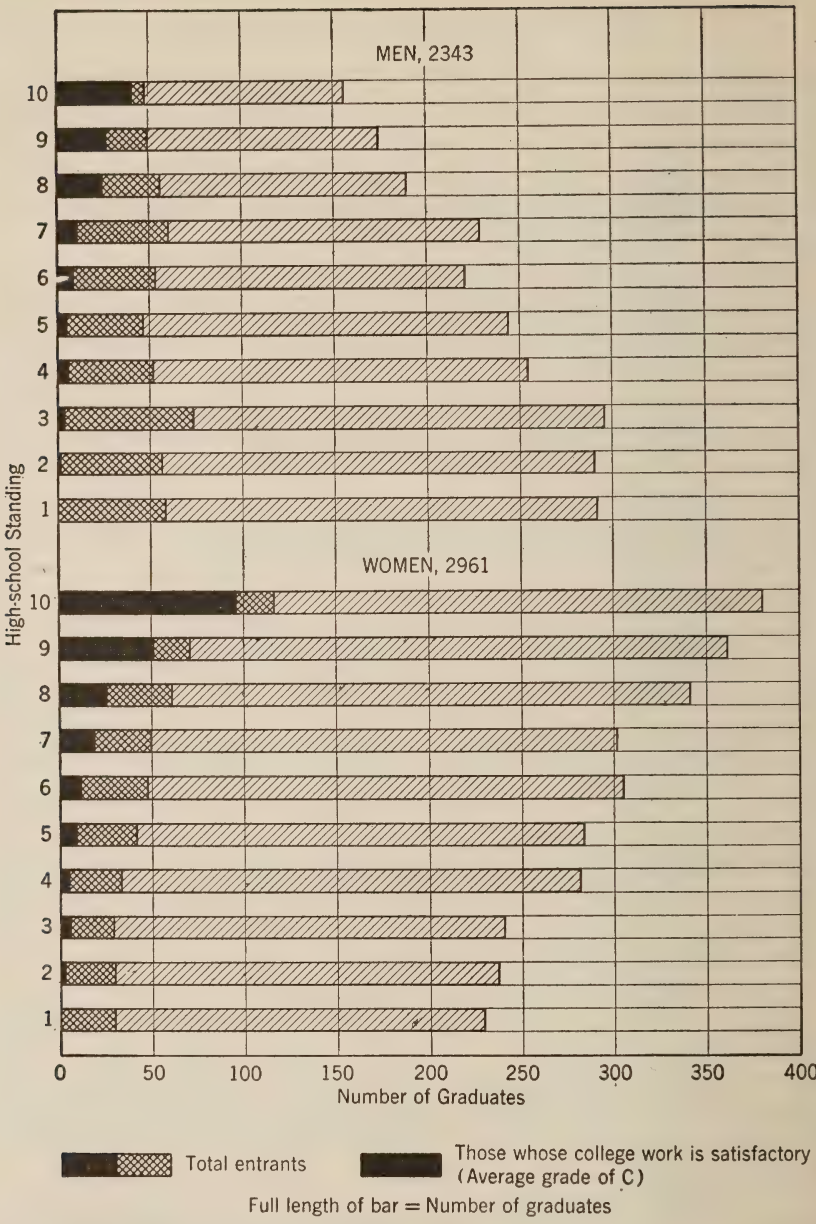

FIGURE 10. Graduates of Twin City High Schools, 1922–1924, Divided on the Basis of High-School Marks into 10 Levels, the Tenth Being Highest, with Indication of the Number on Each Level Who Entered the University of Minnesota and the Number Whose College Work Was Satisfactory

EVIDENCE OF VOCATIONAL MALADJUSTMENT

The vocational choices of high-school pupils. How appropriately are pupils in the secondary-school years making their choice of a life career? The study just cited suggests that many are choosing without a proper evaluation of their abilities. More direct evidence is offered below. The data are taken from a study made in Western Pennsylvania of 2773 pupils about evenly divided between junior-high-school and senior-high-school years and randomly representing 20 different school systems.[1]

TABLE 18

PERCENTAGE DISTRIBUTIONS OF SECONDARY-SCHOOL PUPILS ACCORDING TO THEIR CHOICE OF OCCUPATION

Occupation	Boys				Girls			
	Junior High School (793)		Senior High School (735)		Junior High School (741)		Senior High School (504)	
Engineering		23.5		23.5		.3		.6
Law		1.9		1.2		.4		.2
Medicine		5.2		3.1		—		.6
Teaching:								
Secondary	3.7		5.0		9.2		11.5	
Elementary	1.0		.1		16.7		12.7	
Undefined	.6		.7		3.2		2.4	
Total		5.3		5.8		29.1		26.6
Library		—		—		.8		1.2
Nursing		—		—		11.7		18.7
Journalism		.1		1.6		.5		.2
Art and music		2.6		2.9		3.8		5.4
Pharmacy		1.8		.8		.4		.6
Stage		.3		.4		1.8		.6
Miscellaneous professions		1.4		2.9		1.2		2.2
Farming and forestry		3.2		1.8		.1		—
Trade		3.7		4.6		.7		2.2
Clerical		4.3		11.8		44.4		38.5
Skilled manufacturing and mechanical work:								
Mechanic	5.8		2.2		—		—	
Auto mechanic	4.8		1.0		—		—	
Airplane mechanic	1.8		1.2		—		—	
Machinist	2.8		2.2		—		—	
Printer	.5		.4		—		—	
Draftsman	3.3		3.1		—		—	
Patternmaker	.5		2.4		—		—	
Electrician	3.7		11.2		—		—	
Carpenter	2.0		.8		—		—	
Dressmaker and milliner	—		—		.8		.4	
Other	1.6		1.1		.1		.4	
Total		26.8		25.6		.9		.8
Skilled transportation work:								
Aviator	11.9		7.5		.4		.4	
Other	1.6		.1		—		—	
Total		13.5		7.6		.4		.4
Miscellaneous		3.9		3.4		1.9		1.2
No choice		2.8		3.0		1.5		.2
Grand Total		100.3		100.0		99.9		100.2

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[1] P. W. Hutson, "Measuring the Need for Guidance in Western Pennsylvania," *University of Pittsburgh School of Education Journal*, VI (May, 1931), 125–143.

The pupils were asked to name the occupation they were planning to enter, or at least the occupation they were most seriously considering. Table 18 presents percentage distributions of their responses, with the pupils divided by sex and by school level. In parentheses at the head of each column is the number of pupils in each group. If the occupations from "engineering" down to and including "miscellaneous professions" should be classified as *professions*, the percentage of pupils in each group falling in that category would be found to be as follows, reading across the columns from left to right: 42.1, 42.2, 50.0, 56.9. Parallel studies have commonly shown half the pupils choosing to enter professions. Similarly, the extraordinary percentage of boys electing to take up engineering has been paralleled in other studies. Approximately 85 per cent of the girls here canvassed chose teaching, nursing, or clerical service. Other researches have disclosed the same tendency for girls to crowd into those three fields.

The divergence of these pupils' occupational choices from the actual distribution of workers is shown clearly in Table 19, which telescopes the data of Table 18 so as to make them comparable with a census summary of employed men and women over eighteen years of age. The excess of boys planning to enter engineering and other professions and of girls choosing teaching, nursing, and clerical work, and the complementary shortage of choices in other fields, are evidences of the need for guidance in vocational choice. The comparisons which Table 19 offers should be made with two reservations in mind: first, that be-

TABLE 19

PERCENTAGE DISTRIBUTIONS OF PUPILS ACCORDING TO OCCUPATIONAL CHOICE AND OF ALL EMPLOYED PERSONS OVER EIGHTEEN YEARS OF AGE ACCORDING TO OCCUPATIONS (1920 CENSUS)

OCCUPATION	BOYS		EMPLOYED MEN	GIRLS		EMPLOYED WOMEN
	Junior High School	Senior High School		Junior High School	Senior High School	
Clerical work	4.3	11.8	4.3	44.4	38.5	14.7
Engineering	23.5	23.5	.7	.3	.6	.1
Farming and forestry	3.2	1.8	28.8	.1	—	10.7
Law	1.9	1.2	.4	.4	.2	.02
Medicine and nursing	5.2	3.1	.7	11.7	19.3	2.3
Skilled manufacturing and mechanical work	26.7	25.6	25.0	.9	.8	19.6
Skilled transportation work	13.5	7.6	6.8	.4	.4	2.3
Teaching	5.3	5.8	.6	29.1	26.6	9.0
Trade	3.7	4.6	10.9	.7	2.2	10.0
Miscellaneous professions	6.2	8.6	1.2	8.5	10.2	1.9
Miscellaneous	6.7	6.3	20.6	3.4	1.4	29.4
Total	100.2	100.0	100.0	99.9	100.2	100.02

cause of some degree of selection the proportion of high-school pupils aspiring to the professions may justifiably be a little larger than the number of workers so engaged; second, that we cannot be sure that the existing distribution of workers is what the distribution ought to be.

Do high-school pupils have ability corresponding to their choices? In Figure 11 a single coarse measurement is offered as an answer to this question. The data in the upper part of the figure, showing the intelligence quotients of three occupational classes in the army white draft, have been adapted from Proctor's monograph,[1] in which he gave Army Alpha scores of the three occupational groups in the army white draft. Using Proctor's table of mental-age equivalents for Alpha scores, intelligence quotients were computed for the quartile scores, assuming that mental growth ceases at sixteen years. The procedure was arbitrary, but the purpose was to obtain a measure of intelligence of adult occupational groups which was comparable to that available for the pupils. The lower part of Figure 11 shows the intelligence (range of middle 50 per cent of intelligence quotients) of those high-school boys of Western Pennsylvania who chose to enter the three occupational fields indicated. The point of greatest significance in the figure is that the groups of boys overlap much more than do the groups of men. One

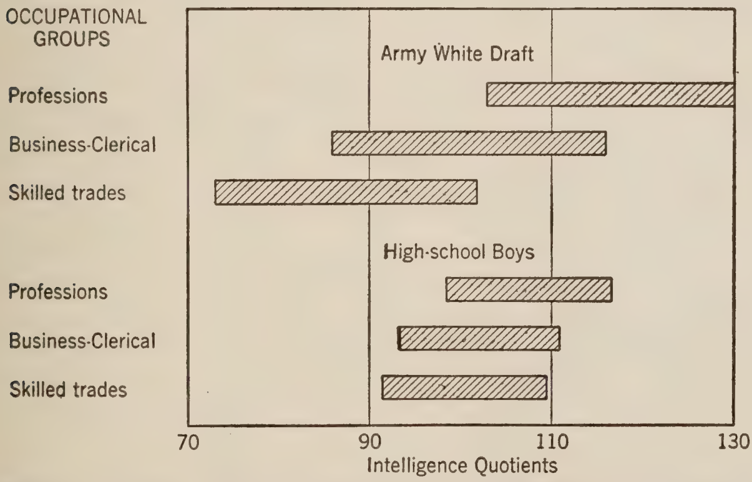

FIGURE 11. Ranges of Middle 50 Per Cent of Intelligence Quotients of Three Occupational Groups and Three Groups of High-School Boys Who Plan to Enter Corresponding Occupations

is justified in concluding that high-school boys choose an occupation without much regard for their general intelligence or the requirements of the occupation for that trait.

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[1] W. M. Proctor, *Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*, pp. 39–41, 67. *Journal of Educational Research*, Monograph No. 1, June, 1921. Public School Publishing Company.

Table 20 affords some insight into pupils' thinking in the problem of vocational choice. The pupils surveyed in the Western Pennsylvania study were told to "List the main reasons for your choice" and were allowed three lines, numbered 1, 2, and 3, on which to write. Most pupils gave two reasons; many gave three. The tabulation shows that most prominent in the pupils' minds were various self-advantages—what the occupation would do for them in the way of immediate and future creature comforts. Almost equal in frequency were such reasons

TABLE 20

PERCENTAGE DISTRIBUTIONS OF THE REASONS GIVEN BY BOYS AND GIRLS FOR THEIR OCCUPATIONAL CHOICES

REASONS	BOYS		GIRLS	
	Junior High School	Senior High School	Junior High School	Senior High School
Self-advantages:				
A. Financial rewards	19.9	13.0	12.7	9.6
B. Possibilities for advancement	6.3	8.0	3.6	8.0
C. Promising future of the industry	3.2	6.1	1.3	.3
D. Easy work	3.0	.8	3.2	.7
E. Affords steady employment	2.2	3.0	1.4	2.1
F. Field not crowded	2.3	5.3	.4	3.4
G. Others, as health, social status, opportunity for travel, ease of learning	14.2	10.0	9.8	6.6
Total	51.1	46.2	32.4	30.7
Expressing like for, or interest in, the occupation (unanalyzed)	31.6	35.3	41.5	46.2
Expressed like for, or interest in, some aspect of the work, as, "I like mathematics" or "I am fond of little children"	1.3	1.3	2.1	2.1
To help my family	.1	—	1.1	.6
Influence of parents or other members of family, through advice, dictation, or example	3.3	2.4	3.1	2.6
Having some qualifications for the work (general and specific mentions of capacity and experience)	6.4	8.4	10.8	8.0
The occupation is socially serviceable	2.7	2.3	3.1	3.9
Mention of source of knowledge of the occupation, as, "Learned about it from reading"	1.4	1.6	4.0	2.4
Restrictions or obstacles forcing the choice	.1	.5	.5	1.6
Affording outlet for, or challenge to, one's powers	1.5	1.5	1.1	1.5
Having opportunity to enter the vocation	.4	.5	.4	.5
Total	99.9	100.0	100.1	100.1

as "Am interested in it" and "I like it." A comparison of personal competency and occupational requirements appears in only two of the categories of reasons mentioned with minor frequency. The table as a whole throws considerable light on the problem of vocational guidance.

Young people in industry. Further evidence of vocational maladjustment may be found in numerous studies of efficiency and turnover of labor among workers of various ages and training. These researches cannot be quoted here. The rapidly developing science of personnel management is testimony to the increasing interest of industry itself in the problem. The school may well be expected, however, to be directly interested in investigations into the vocational careers of youths sixteen to twenty years of age. The chief difficulty of such young people in recent years has been to obtain any kind of employment. In times when that was not a problem, however, various studies showed that most young workers formed occupational connections very casually and that a high rate of transiency prevailed among them.

At present, various agencies, national in scope, are engaged in study of the problem of youth and in administration of assistance. With several millions of young people unemployed and having no employment history, the point at which school and vocation should be joined is being scrutinized as never before. Occupational placement of youth is being accepted as a social responsibility. High-school guidance programs must take cognizance of the problem.

Evidence of social, emotional, volitional, and other maladjustment. The continued study of human behavior has brought an increased awareness of the existence of innumerable impediments to individual development. They vary widely in type, in visibility, in causation, in remediability. Problems of health and physical development, of scholarship, of family relationships, of sexual abnormality, of conflict with moral standards and authority, of introversion or of aggressive reactions—these are only suggestive of the great variety of difficulties which call for diagnosis and remedial treatment if the pupil's potentialities are to be developed. Pressey has contributed a well-rounded exposition of these problems, making it clear how exceedingly individual they are.[1] Problems of personality have been treated at length by authorities in the field of mental health.[2]

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[1] S. L. Pressey, *Psychology and the New Education*, pp. 9–302. Harper & Brothers, 1933.

[2] See, for example, W. H. Burnham, *The Wholesome Personality*, D. Appleton-Century Company, 1932; and L. F. Shaffer, *The Psychology of Adjustment*, Houghton Mifflin Company, 1936.

Wickman conducted research[1] which showed that teachers and mental hygienists differ sharply in their opinions of the seriousness of the types of personality problems. Teachers classified as most serious such activities or attitudes as whispering, disturbing, and defiance (which represent aggressive behavior), whereas the mental hygienists considered most serious such traits as unsocialness, suspiciousness, and unhappiness, all withdrawing forms of behavior. Strang has further illuminated the problem of developing adequate sensitiveness to those difficulties of children which call for adjustment service. She concludes her researches as follows:[2]

> In thinking of their own adolescent difficulties, adults tend to recollect principally withdrawing types of behavior; whereas in thinking of the problem of contemporary adolescents, they tend to emphasize aggressive types of behavior. This tendency to report teachers' problems rather than problems that interfere seriously with the child's development may be due not to a lack of sympathy with modern young people, but to the fact that the withdrawing types of behavior are not so easily observed as are the problems involving a clash with the environment.

Many of the problems which are a challenge to adjustment will be found only by the treatment of each pupil as an individual case. The evidence of maladjustment may best be located if there is provision for the well-rounded study of each pupil as a developing personality and also for a member of the staff in whom the pupil feels free to confide. Tests of scholarship, measurements of attitudes and personality traits, inventories of environment are all helpful, but expert observation and subjective analysis of each individual are essential if all the needs for adjustment are surely to be detected.

THE PROBLEMS OF GUIDANCE

The Fundamental Problems of Distributive Guidance

1. How to acquaint the pupil with the educational and vocational opportunities of the world. Choice cannot well be made intelligently unless one has seen the full array from which a choice is to be made. To gain acquaintance with these opportunities means something more than merely reading about them. Some observation of them in actuality and some actual trial of them will clearly be necessary if one is to perceive them. The more truly the school reflects life, the more fully is this problem met.

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[1] E. K. Wickman, *Children's Behavior and Teachers' Attitudes.* The Commonwealth Fund, Division of Publications, 1928.

[2] Ruth M. Strang, *The Role of the Teacher in Personnel Work* (Revised and Enlarged Edition), p. 172. Teachers College, Columbia University, 1935.

2. How to acquaint the pupil with his own powers, interests, and limitations. If we define guidance as the process of matching the individual with the opportunity for which he is best fitted, it follows that there must be self-analysis as well as job-analysis. The school must afford the pupil varied experiences in order that he may learn what he likes to do, what he has ability to do, and what he does not like to do or cannot do. Self-testing is an indispensable preliminary of reasoned choice.

3. How the school may know the pupil's powers, interests, and limitations.

4. How the school may be fully and continuously acquainted with the educational and vocational opportunities of the world. Problems 3 and 4 follow logically if the school is to play a part in the pupil's choices. If the school is to assist the pupil in his choices, it must be a close observer of the pupil's reactions to his testing experiences. It must build up a cumulative record of these reactions through the years, so that the individual stands more and more fully revealed and so that the school has a sound basis for helping the child's interpretation of himself. Likewise, the school must know what the world is made of in order to assist the pupil in his analysis of opportunity. We have evidence continually that the school does not adequately reflect the world. The college-preparatory tradition lingers on, and so the school is said to reflect only, or too largely, the white-collar occupations and education. It is difficult to see how a faculty composed largely of women with liberal-arts training and with a career of teaching academic subjects as their own most vivid experience can advise a heterogeneous body of pupils destined properly for heterogeneous paths in life. Such a school must effect a change in its personnel, its curriculum, its plant and equipment, so that it is more nearly a replica of the world.

The first four problems should be thought of as bearing on the *preparation* of the pupil and the school for the occasions when choices of studies or choice of occupation must be made. It is apparent from their description that the guidance services which meet these problems must pervade the entire educational program of the school, frequently serving to train and to develop pupils as well as to prepare them for choosing. The curriculum and the extracurriculum from the kindergarten up should be planned so as to bear on these problems.

5. How the school may help the child at times of selection and decision. At the inception of the guidance movement, attention was focused primarily on solving this problem; but as the guidance function has come to be seen in more adequate perspective, it has become evident that the largest contribution to its solution comes through increased attention to the four problems just discussed. Thoroughgoing preparation renders less critical the moments of decision. Nevertheless, such moments come, and they call for a focusing of all the wisdom which the school and the pupil have been accumulating for the occasion. Just how that will be done and how the two can co-operate so that there will be an absence of dictation on the part of the school and true reasoning on the part of the pupil is a problem which administration must face.

The Fundamental Problems of Adjustive Guidance

1. How to identify cases of maladjustment of various types and identify them in their incipiency, if possible. Even if a school is relatively well staffed with experts in various forms of maladjustment, there must be some means of identifying the cases which they should study. Commonly the experts do not have sufficient contact with the pupils to meet this first problem, which so obviously conditions the success of such program as they may have. With or without experts, it seems that this problem rests largely on the rank and file of teachers.

2. How to diagnose cases of maladjustment. This is the second manifest step in performing the function of adjustment. Cases vary in difficulty of solution. Some tax the best-trained experts; others may be solved by the common sense of an understanding teacher or principal. High-school administration must establish adequate agencies for diagnosis.

3. How to prescribe remedial treatment, administer it, and follow it through. If adjustive guidance is to be effective, care must be taken to see that the service is carried through to a logical conclusion. Many forms of maladjustment require continued treatment over long periods of time and involve the carefully co-ordinated effort of teachers and specialists. To create the necessary facilities and achieve proper co-ordination of forces is a task for administration.

These fundamental problems serve as criteria by which to judge a guidance program or to formulate one. They are referred to frequently in the pages which follow, because guidance features must be justified in terms of their bearing on one or more of the fundamental problems.

FEATURES OF THE SCHOOL WHICH ACHIEVE GUIDANCE

A. School Publications to Inform and Orient

The main types of publications. In their survey of guidance practices among 336 widely scattered secondary schools, Koos and Kefauver [1] found that 78.3 per cent published a program of studies, 26.5 per cent a students' handbook, and 20.2 per cent an elaborate booklet on school opportunities. Smaller percentages of the schools issued other types of publications useful in guidance.

The concluding section of Chapter II, "Administering the Program of Studies," considers the printed program of studies and points out the features that make it helpful in guidance.

The handbook is typically a publication prepared by pupils under teacher sponsorship for the purpose of orienting new members in the school community. Its contents most commonly cover such topics as the organization of the school, the program of studies, student organizations and activities, all manner of rules and regulations, the customs and traditions of the school, yells and songs. The guidance purpose of handbooks has been well stated by one who made an extensive analysis of their content: [2]

> The new pupil enters a new world, one that he probably knows little or nothing about, and naturally he is tense with excitement. He knows little about the school or what is expected of him. He does not know the teachers, the rules and the regulations, the customs, the school traditions, what programs he is eligible to take, the social organizations to which he may belong, the school songs, yells, etc. In short, he is ignorant, and his ignorance must be dissipated before he can become a real citizen of the school.

There should be little doubt about the usefulness of a handbook in schools of medium and large size. Since township and county high schools and high schools which receive a large number of tuition pupils face a severe problem in accomplishing the orientation of their pupils, the handbook would seem to be an instrument of particular value to them. It should be regarded as serving both distributive and adjustive guidance.

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[1] *Op. cit.*, p. 31.

[2] Harry C. McKown, "The High-School Handbook," *School Review*, XXXII (November, 1924), 668–669.

The issuance of an elaborate booklet on school opportunities is especially necessary in those large city systems which have established specialized schools in contrast to comprehensive schools. It is a more difficult problem for pupils and their parents to select a school than to select a curriculum within a school. They must know what all the varied schools have to offer. Accordingly, it is not a matter of surprise that systems with specialized schools employ the elaborate booklet more frequently than do systems with comprehensive schools.[1]

Planning the maximum use of published aids. The purpose of these publications is to place essential information before pupils more economically, completely, and accurately than is possible through oral presentation. The desired effect will not be achieved, however, unless there is a plan for the careful reading and study of the publications. General practice in this matter has not been studied, but it is known that in some schools the home room is directly charged with responsibility for reading and discussion of the handbook, several periods early in the year being devoted to this purpose. In one school the English classes serve as the medium for such instruction. The Turtle Creek Union High School, in a suburb of Pittsburgh, utilizes the required course in civics in Grade IX for study of the handbook, assuming that good citizenship within the school is appropriately the first unit for a civics class to take up. Some plan such as these must be included in the guidance program if maximum value is to be derived from publications.

B. Organization of the School and of the Program of Studies

Guidance facilitated by the six-year secondary school. An important purpose in the junior-high-school movement has been the establishment of opportunity for exploration. By means of an enlarged and enriched curriculum it is intended that the pupil discover his abilities and interests and thereby acquire a valid basis for choosing the direction of his specialized training in the later secondary years. Under the 8–4 plan, the pupil typically enters on a specialized curriculum leading toward college, clerical occupations, or manual labor without opportunity to try himself out. The six-year period for secondary education has a distinct advantage in being long enough to provide for both exploration and specialization.

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[1] Grayson N. Kefauver, Victor H. Noll, C. Elwood Drake, *The Horizontal Organization of Secondary Education*, p. 110, Table 31. National Survey of Secondary Education, Monograph No. 2. United States Office of Education, Bulletin No. 17, 1932.

Some four-year schools have recognized their handicap and have taken steps to compensate for it. Such a school is the Joliet Township High School, the guidance program of which has been described in one of the monographs of the National Survey of Secondary Education.[1] This school receives graduates from eight-year elementary-school districts under separate control and therefore finds it advisable to utilize Grade IX extensively for orientation and exploration.

> A half-year course in occupations is provided. . . . All freshmen are required to take a year of general science, which is organized as an exploratory course, and a year of general shop or general home economics. The general shop course consists of six 6-week units in six different shops, and the general home-economics course of three 12-week units. . . . Exploratory courses in music and art are also provided. The aim of the school is to bring to bear on the pupil its entire resources, to the end that self-discovery may be an outcome of the freshman year.[2]

Flexibility in curriculum organization. The breadth of variation in high-school pupils and their problem of finding their true interests are compelling reasons why the high-school program of studies should be highly flexible. One of the devices for achieving this condition is the placing of some subjects on an elective basis. Such practice promotes guidance in two ways: first, by providing opportunity for exploration; second, by creating a situation in which guidance has a chance to operate—that is, a situation in which choices are to be made. A few schools have organized their programs of studies on the constants-with-variables basis, which allows the widest latitude for choice. Most schools have the multiple-curriculum type of program, with subjects organized in from three to six curriculums.[3] These curriculums vary widely from school to school in the extent to which their subjects are entirely prescribed or partially elective. An example of unnecessary rigidity is to be found in a study [4] which reveals the entrenched position of plane geometry in 132 widely scattered high schools with enrollments of 500 or more pupils. Of the academic curriculums in these schools, 95.7 per cent required plane geometry; of the general curriculums, 78.0 per cent; of the home-economics curriculums, 76.0 per cent; of the technical curriculums, 75.6 per cent; of the commercial curriculums, 17.7 per cent. In most of these high schools the pupil's best opportunity to avoid plane geometry lay in following the commercial curriculum. Such a dilemma is unfair to high-school pupils.

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[1] William C. Reavis, *Programs of Guidance*, Chap. X. National Survey of Secondary Education, Monograph No. 14. United States Office of Education, Bulletin No. 17, 1932.

[2] *Ibid.*, pp. 106–107.

[3] Koos and Kefauver, *op. cit.*, p. 59, Table V.

[4] P. W. Hutson and M. G. Wilson, "Practices in Curricular Guidance," *School Review*, XXXVIII (December, 1930), p. 753, Table II.

A second method for achieving flexibility lies in provision for reasonable facility of transfer from curriculum to curriculum. Under the present practice of requiring pupils to elect a curriculum at the beginning of Grade IX, it must be recognized that many mistakes will be made. Ample evidence exists—some of which has already been given in this chapter—to show that pupils of fourteen and fifteen years of age have no accurate knowledge of their abilities and interests. High-school experiences should help them to *find* themselves; and if a pupil explores a curriculum with negative results, he should be allowed to transfer without penalty. This is not to argue that the pupil's passing whim should prevail. Transfer should occur only after careful examination of the evidence by the pupil and a competent counselor.

Significance of the general curriculum in the guidance program. An increasing number of schools are utilizing the general curriculum to provide the desired flexibility. The frequency of appearance of this curriculum in the program of studies and its manner of use by administrative officers and pupils is set forth in Chapter II. In order to have a comprehensive view of the possibilities of the curriculum in guidance, it would be well at this point to look back over the portions of Chapter II to which reference has been made.

C. The Curriculum in General

Developmental and guidance values contrasted. Educational literature devoted to explaining or justifying various subjects in the curriculum has emphasized primarily their developmental values. The subjects are discussed chiefly in terms of their effectiveness in developing the habits, attitudes, and abilities needed for good citizenship, for a vocation, for a healthful life, and for the worthy use of leisure. On the other hand, the guidance values of the subjects have been neglected. Yet a little reflection serves to define these values as important agents in meeting three of the basic problems of distributive guidance. First, they help the pupil to see and experience the educational and vocational opportunities of the world. They accomplish this in the degree to which they faithfully represent the world. Second, they help the pupil to find his own inclinations, abilities, and limitations. They give him the opportunity for self-testing. Third, they reveal him to the teacher as having this aptitude and that disability, this absorbing interest and that hearty dislike. These guidance values have been aptly stated by Johnston as follows: [1]

> The studies give the pupil a means of trying himself out, they give him something to bite on, they help him to find out what kinds of things his native talents enable him to do. High-school studies are the teething rings of adolescence. They assist in the eruption of native powers and help the child to learn what his particular powers are.

That such utilities are not being more fully realized is due largely to the fact that the minds of administrators, teachers, and pupils are dominated by the concept of developmental values. Teachers are prone to think of their function as solely to train rather than also to test and explore the human material before them, or to give their pupils rich opportunities for testing and exploring the world and themselves. Another reason why the guidance values of the curriculum are not more fully realized is the tenuous connection often prevailing between the subjects and life, or at least life as the pupil knows it. The trend of educational theory and practice is undoubtedly toward a more lifelike curriculum.

The elementary-school curriculum. It must be obvious that the outcomes which we are stressing may be realized throughout the school, from the kindergarten to the graduate school. The secondary-school administrator should be closely concerned with the realization of guidance values in the elementary school because in the elementary years the pupils and the school should be gradually accumulating the evidence on the basis of which secondary-school differentiation may be wisely effected. If, in his ability to grasp the fundamentals of arithmetic, to acquire a comprehension of language structure, and to apply principles in the solution of problems in geography, John has shown extraordinary mental acuity, those facts should be known and utilized in determining his route through the secondary school. The elementary-school experience should afford a comprehensive analysis of all the members of John's class.

The value of the elementary-school curriculum in affording the pupils a fund of occupational information has been happily emphasized by the publication of a useful book on the subject.[2] Undoubtedly, the wholesome tendencies to have pupils read much more extensively than formerly, to study arithmetic in more natural social settings, and to introduce arts and crafts into the daily round are all promoting a basic acquaintance with the occupational world. If the teacher senses guidance as well as developmental values, these will be done more ably.

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[1] J. B. Johnston, "Vocational and Educational Guidance in the High School and Its Relation to Higher Education," *Vocational Guidance Magazine* (now *Occupations*), VII (October, 1928), 16.

[2] T. C. McCracken and H. E. Lamb, *Occupational Information in the Elementary School.* Houghton Mifflin Company, 1923.

The junior-high-school curriculum. In the junior high school the dominant guidance purpose caused the introduction of courses intended especially to serve as guidance instruments. These have been called tryout courses. They first developed in industrial arts, their acceptance being facilitated by the frank rejection of the trade-training purpose at that school level. One example of tryout courses in manual arts is that described as in operation in 1925 in St. Cloud, Minnesota.[1] In the seventh grade all boys are required to pursue six exploratory courses, each extending through six weeks. The instruction is more extensive than in many junior high schools, since one 60-minute period daily is required. Six half-year elective courses follow the year of exploratory units and represent opportunities for a more extended study in the same industrial experiences. Essential to a rounded achievement of the exploratory function is the inclusion of information concerning the various occupations centering about the industrial processes which are experienced. The St. Cloud manual gave due attention to that aspect of the curriculum. The ideal of instruction in several industrial experiences has been widely accepted in junior-high-school departments of industrial arts.

Short unit courses for exploratory purposes have gained some vogue in other fields, such as commercial subjects, household arts, agriculture, languages, fine arts. No authorities who have written on tryout courses, however, are willing to recommend courses which have exploratory values only. It is uniformly insisted that there must also be developmental values in every such course. Thus it seems that the two types of values, though distinctive, must be linked together.

The status of exploratory units in junior high schools was examined a few years ago by Cline.[2] His report was not encouraging. Opinion of the principals he found to favor the theory of exploration and to recognize its value, but application he found to be feeble and chaotic.

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[1] *Manual Arts in the Junior High School.* Board of Education, St. Cloud, Minnesota, 1925.

[2] E. C. Cline, "Junior High School Exploratory Units in Practice," *Junior-Senior High-School Clearing House* (now *Clearing House*), VII (November, 1932), 152–156.

> Taking as a whole the junior-high-school courses of study, 56 per cent of the subject fields have no such units. . . . Despite this lack of exploratory units, 50 per cent of the schools have made no additions in the past five years, while 25 per cent have actually either dropped one or more exploratory units without replacement or have substituted therefor "old-line" subjects, such as Latin for general language, algebra for general mathematics, biology for general science.[1]

From the latter part of the above quotation it may be judged that Cline had a broader interpretation of exploratory courses than the present discussion has implied. The "general" courses to which he refers deserve special mention for their exploratory significance. Introduced originally because they represent a psychological organization of subject matter better suited to junior-high-school pupils than the usual adult classifications, they are to be regarded as significant for guidance because they touch upon wide ranges of experience and are substantially connected with life as the pupil sees it.

The senior-high-school curriculum. As pupils go on into senior high school, their opportunities for exploration continue. They try new and more difficult tasks, and the impressions which they gained of themselves and of the world in previous years are refined, modified, and clarified. Through English the pupil learns that he has an aptitude for written or oral expression or that he lacks such aptitudes; he gets glimpses of many occupations as he reads literature within and without the class, especially if his reading lists have been modernized to include some present-day writings and selections that do not classify as belles-lettres. Through the sciences, if they are taught in direct relation to the pupil's environment, some knowledge of the duties, the nature, and the conditions of a multitude of occupations is gained; the pupil's teachers, in observing his reactions, note that he has a flair for effective thinking and working in the realm of natural science, or that he earns no distinction in such activity, or that he is singularly inept. Illustration of guidance values from other studies is not necessary.

The administrator's responsibility. No other guidance feature serves so distinctly as the curriculum to exemplify the pervasive character of a valid guidance program. Those who are prone to regard the performance of guidance as limited to specialists hold an indefensible position. Guidance is integrated with the most fundamental elements of the school. The whole teaching staff must participate in its performance. To bring about such universal participation is a challenge to supervisory leadership, for, as explained at the beginning of this treatment of the curriculum, the subjects of study have had but little recognition as guidance agencies. Guidance will not result automatically from the curriculum experiences of the pupils. The experiences must be planned from the angle of their guidance possibilities and they must be interpreted to the pupil.

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[1] *Ibid.*, p. 154.

A second task for the administrator is the provision of means for capitalizing the cumulative findings of the explorations. In the course of a few years many teachers see the pupil react to a considerable variety of situations. How to preserve their impressions and record them, so that they will all be available to give a well-rounded picture of the individual pupil at times of deciding which route he is to take, is a formidable problem. It is given consideration in a later division.

D. Extracurriculum Activities

Exploratory values of the curriculum supplemented by the extracurriculum. The pupil-initiated and pupil-controlled activities carried on outside the classroom have the same guidance values and the same developmental purposes as the organized curriculum of the school. A study of Figure 4, page 132, shows that educational writers have thus far thought of the extracurriculum primarily from the standpoint of *training* and little from the standpoint of *exploration for guidance.* Except for "Recognition of interests and ambitions" (No. 18), "Exploration" (No. 19), and "Recognition of adolescent nature" (No. 22), the values recognized are in the nature of training. Yet one who discerns the character and the need of the guidance function has only to glance over the list of the extracurriculum activities in Chapter V to sense how broad are the opportunities for self-testing, for sampling the world's work, and for revealing pupils to teachers. Furthermore, the nature of pupil participation in these opportunities is likely to emphasize these guidance values; in the extracurriculum there is a high degree of pupil activity and pupil responsibility, whereas in the curriculum the atmosphere is too frequently characterized by pupil passivity and teacher responsibility.

Impressed by the "finding" possibilities of school clubs, Bruner and his faculty encouraged the development of 60 to 80 such organizations (of which the following list is a representative sample) and provided a period for them in the school day.[1]

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[1] Herbert B. Bruner, *The Junior High School at Work*, pp. 45–52. Teachers College, Contributions to Education, No. 177, 1925.

Agricultural Club
Ancient History Club
Art History Club
Banking Club
Batik Club
Beginners' Band
Beginners' Orchestra
Bird Club
Boy Scouts
Burbank Club
Camp-Cooking Club
Camp Fire Girls
Cartooning Club
Catering Club
Ciceronian Literary Society
City Sanitation Club
Courtesy Club
Costume Club
Current History Club

This brief list suggests contact with a number of occupations and illustrates how the extracurriculum supplements the curriculum so that the school can more fully reflect the life of the world.

The guidance values of the extracurriculum will be most fully realized if (1) it is managed with the object of giving experience to many pupils rather than the presentation of public spectacles, (2) there is more emphasis on having the pupil sample widely rather than specialize in one or two lines, and (3) the experiences of each pupil are adequately recorded so as to serve as capital for counseling.

E. The Organized Study of Occupations

How carried on. (1) *As a course, frequently designated as "vocational civics."*—Early in the guidance movement the systematic study of occupations was felt to be an essential element of the program. About two decades ago a special course appeared and was recognized by an important committee as deserving a place among the social studies to be required of junior-high-school pupils.[1] A recent survey by Proffitt [2] (see Table 21, page 202) shows that instruction in occupations has gained wide acceptance. Of the schools reporting such instruction, 43.8 per cent offered a separate course in the subject, 51.3 per cent gave it as part of some other course, usually social science, and 4.9 per cent gave it both as a separate course and as part of some other course.[3]

When the instruction is given as a separate course, the time allotment tends to be a half year of five periods a week. When it is given as part of another course, it receives from a sixth to a third of a year.[4]

While there is considerable lack of agreement as to the exact nature and organization of courses in the study of occupations, the following

[1] Arthur W. Dunn, Chairman, *The Social Studies in Secondary Education*, pp. 26–29. United States Bureau of Education, Bulletin No. 28, 1916.

[2] Maris M. Proffitt, *Courses in Occupational Information.* United States Office of Education, Bulletin No. 11, 1934.

[3] *Ibid.*, p. 4.

[4] *Ibid.*, p. 12.

TABLE 21

PERCENTAGE OF DIFFERENT TYPES OF SCHOOLS GIVING INSTRUCTION IN OCCUPATIONAL INFORMATION (*Adapted*)

KIND OF SCHOOL	NUMBER REPORTING	PER CENT GIVING INSTRUCTION
Regular four-year high school	460	64.5
Junior-senior high school	200	75.5
Junior high school	282	87.2
Senior high school	169	42.6
Total	1111	68.5

topics are frequently found in syllabi describing it: the value of an education; choosing a vocation (suggesting the matching of one's self with opportunity); making a start in one's vocation; making progress in one's vocation; studies of occupations. To the last topic half or more of the time is commonly devoted.

A pressing problem for the administrator is how to procure trained teachers for such a course. At present few training institutions offer courses which contribute the specific background necessary for the subject. The requirement of special certification can undoubtedly improve this situation more quickly than any other device, because it impels the training institutions to develop an appropriate curriculum. Pennsylvania requires 18 hours of special training, of which 12 must be selected from the social sciences, vocational education, or commercial education, and the remaining 6 hours must be allotted as follows: a course in secondary-school guidance, 2 hours; occupations, 2 hours; and personnel problems in industry, 2 hours.

How shall good teachers be retained for this course year after year so that teaching "vocational civics" may become at least as much a profession as teaching English or mathematics? The commonly observed condition at present is that the transiency of teachers of this new subject is unusual. A beginner is assigned vocational civics, but is shortly "promoted" to the more honorific status of teaching one of the older subjects. Such transiency constitutes a serious obstacle to the achievement of the goals on which the course bears. A few schools have solved the problem in the effective manner employed in Providence, which has been reported as follows: [1]

> The vocational orientation of the pupil is accomplished in part through class instruction in occupations. Pupils in grades 7–9 receive instruction two periods

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[1] William C. Reavis, *Programs of Guidance*, p. 65. National Survey of Secondary Education, Monograph No. 14. United States Office of Education, Bulletin No. 17, 1932.

per week. The classes are taught by the counselors, each counselor being assigned, as a rule, to the classes in which are enrolled the pupils regarding whom the counselor is expected to carry on personnel research and with whom individual counseling is to be given.

(2) *Classes in English composition.*—The organized study of occupations in classes in English composition began in Grand Rapids and was described in detail over twenty years ago by its originator, Jesse B. Davis.[1] The practice apparently is not followed in many schools today, although the teachers of English in some cities are encouraged or directed to have some pupil expression center upon occupations and occupation choosing. A chief advantage which Davis saw in his plan was that organized consideration of the problems of educational and vocational choice followed the pupil's developing interests and abilities all through the secondary-school period instead of being crowded into a single semester of a junior-high-school year. An apparent disadvantage is the difficulty of securing a uniformly high degree of interest and expertness in this content on the part of all teachers of English, as compared with putting the subject into the hands of one who specializes in that field.

(3) *In home-room groups.*—Through group conferences once a week in each home room some schools attempt to contribute to pupils the informational background essential to vocational and educational decisions. In their survey of home-room practices in 75 junior high schools and 55 senior and four-year high schools, Kefauver and Scott [2] found that 50.7 per cent of the principals of the former and 36.0 per cent of the principals of the latter had checked as an activity of the home rooms in their schools, "Present information about or discuss vocational opportunities." When such instructional responsibilities are imposed on home-room teachers, the outline of topics usually includes also training in citizenship, courtesy, and so on, aspects of the educational program which are now found in many schools.

This plan has the advantage of affording opportunity to correlate the study of occupations with the pupil's development, as does use of the medium of English composition, but its greatest disadvantage is the assumption that all home-room teachers of the school, who typically include most of the teaching staff, can and will become interested and capable in this branch of teaching. If the half-year course suffers because of a lack of trained teachers, how much poorer will be the teaching of occupations when it is imposed upon all teachers?

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[1] *Vocational and Moral Guidance.* Ginn and Company, 1914.

[2] Grayson N. Kefauver and Robert E. Scott, "The Home Room in the Administration of Secondary Schools," *Teachers College Record*, XXXI (April, 1930), 634.

If this plan is followed, the home-room groups must be homogeneous as to class, in order that there may be a curriculum of continuity and development followed from year to year. The subject will probably be taught more efficiently, also, if the practice is followed of having each teacher take a new home-room group of the same grade each year, so as to become proficient in teaching the outline for a single grade. Then the home-room teachers of any one grade can form a committee for the full development of their home-room teaching by meeting to pool their ideas.

If the home-room group is to be a real study and instructional group, accomplishing the learning that is expected in a course for which credits and marks are given, the teacher will have to rise to a new level in technique. He will not be able to induce the pupil to put forth an effort by holding over him the compulsions which too largely are employed as the means of motivation in regularly organized classes. He must employ a more intrinsic motivation; the activity of the group must be more informal, more largely pupil-initiated and pupil-controlled. This hints at the idealistic tone which should characterize all learning within the school. Any plan for solid instruction and learning within home-room groups assumes that a more or less tradition-bound teaching personnel can be raised to a new level in the technique of directing learning. This is a practical problem for administration and supervision, and failure to recognize it or to meet it is one of the reasons why home-room group conferences are so often inferior to the pictures drawn by certain enthusiasts in educational literature.

(4) *Assembly speakers and auditorium programs.*—The device of bringing in outside speakers to give occupational information by addressing assemblies or other groups of students has been used since the earliest days of the guidance movement. In 1923 this mode was employed in more schools than any other, according to Edgerton's survey of that year.[1] Yet it seems likely that less and less dependence will be placed on this device as the study gradually attains the dignity of a regular school subject.

The advantages of occupational talks by members of the community are that they bring local and immediate knowledge to the pupils and that they lend reality to the printed descriptions which may be available for the pupils to read. The limitations, however, are several. In the first place, it is often not possible to have a broad range of occupations presented in this way, especially in small communities. In the second place, it is difficult to secure the interest of a large assembly of high-school pupils for a strictly informational talk about some one occupation or group of occupations. In the third place, many of the speakers will not have the educational point of view. Such talks have been found to be most effective when the speakers appear before small groups of specially interested pupils. The problem of holding the interest of the audience is then less difficult, and the speaker can be more specifically informational because he need not try to be entertaining. Under these easier conditions for the speaker, individuals who do not feel equal to giving a public address will often accept the invitation, thus enabling the presentation of a broader range of occupations. Use of outside speakers under such conditions has been described as the plan was worked out in Minneapolis high schools.[1]

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[1] A. H. Edgerton, *Vocational Guidance and Counseling*, p. 40, Table V. The Macmillan Company, 1926.

Space does not permit a discussion of practice in the employment of auditorium exercises of other types, such as those of student production or occupational films. An ably directed guidance program includes such devices when they seem calculated to augment the pupils' fund of vocational information.

Collecting occupational information. A responsibility devolving on any school or school system which essays to establish an organized study of occupations is that of securing accurate, up-to-date, local information about the occupations. The accounts published in textbooks are rapidly outdated, and they are general in character because they are intended for the entire country. One school system which has earned distinction for its occupational research is that of Cincinnati. As described in the National Survey Monograph referred to above,[2] each counselor spends approximately thirty days a year in visiting industrial establishments and in interviewing employers, workers, and technical authorities. The information thus obtained is prepared for the use of other counselors, teachers, and pupils.

> This material now analyzes more than 300 occupations and training centers and is prepared in three forms: (1) Printed pamphlets; (2) simple mimeographed descriptions, especially for the use of children; and (3) detailed occupational analyses filed in loose-leaf notebook form for the use of all counselors.

[1] Barbara H. Wright, "A Method of Using the Group Conference as a Guidance Device," *Vocational Guidance Magazine* (now *Occupations*), VII (October, 1928), 26–33.

[2] William C. Reavis, *op. cit.*, p. 81.

For the many school systems in which occupational research on such a scale seems out of the question, much may be accomplished by following the example of a teacher of vocations[1] who sent his pupils to interview workers among their friends and relatives and collect the information called for on a carefully devised blank. A large number of local occupations were thus illuminated, and the activity proved to be a good learning exercise for the pupils. In other schools classes in vocational civics or other classes have undertaken occupational surveys of the local community.

F. Measurement and Analysis of Pupils

Diagnosis an obligation of the school. If the school is to play a part in helping the pupil to make valid choices, it must have a thorough understanding of him. Counseling the pupil in his selection of an occupation, a curriculum, or a college all involve some prediction of success or failure. Measurements of abilities and interests in terms of the qualifications necessary for the various pursuits under consideration are necessary elements in prediction. Such study of the individual may be viewed as serving distributive guidance. Diagnosis also is basic to any act of adjustive guidance. When the individual gives evidence of being improperly adjusted in the school, either because of lack of attainment or because of apparently inadequate membership in the school as a social group, analysis of his case must be made as the proper basis for overcoming the maladjustment.

Measurement and analysis of pupils should not be thought of as peculiarly and solely an element in the guidance program. It also serves the functions of curriculum-making and instruction. Such plurality of purpose implies that the guidance officer should not necessarily be charged with the task of making measurements. Primarily, he must *use* measurements. The section of this chapter devoted to organization of the guidance program shows pupil measurement as part of the school's research program.

Data obtained from the pupil for guidance purposes. Some knowledge of the pupil's educational and vocational plans or preferences is essential to helping him select his curriculum and elective subjects. Without doubt it is desirable to obtain some expression on these points each year, because such practice induces frequent consideration of them by the pupil and his parents and counselors. Aspirations must be examined for their validity and feasibility in the light of all available information on the ability, interests, and condition of the pupil.

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[1] Oliver R. Floyd, formerly on the staff of the Bellevue, Pennsylvania, High School.

Other significant data to be obtained from the pupil are many items relating to the home environment. Every pupil presents an individual problem. In the exercise of both distributive and adjustive guidance, the items of information that contribute to their effective functioning are numerous and varied and operative in dissimilar combinations. Among the more important facts concerning the home environment which may be needed are the following:

Are the parents living?
Is there a stepparent?
Father's occupation
Mother's occupation
Nationality
Language spoken in the home
Number, age, and occupations of brothers and sisters
Home duties and activities of pupil
Study conditions
Education of parents and of older brothers and sisters
Types of communities the pupil has lived in

Other items of importance which may have to be obtained from home visitation rather than from the pupil are:

Habits and character traits of parents and other members of the household
Moral tone of the home
Emotional atmosphere
Degree of physical comfort provided
Character of the discipline to which the pupil has been and is being subjected

While relationships between socio-economic status and intelligence, length of stay in school, ethnic grouping, and other characteristics are such as to assure us of their significance, none of those relationships is so clear-cut as to obviate the desirability of subjective consideration of the entire home milieu of each pupil.

A third category of information to be obtained from the pupil is in the general area of his out-of-school experiences and activities. What does he do in his leisure time? How has he spent his vacation periods? Has he had any vocational experiences? By taking account of these items and analyzing the pupil's reaction to them, the adviser often has a good basis for calling the pupil's attention to a possible educational avenue or a vocational future.

Never to be neglected is the factor of physical condition. Data of this category must in general be gathered by the school doctor and nurses through interview and examination, but the facts must be available for the educational adviser. The state of the pupil's health and the types of physical disabilities which may serve to handicap him are factors to be considered in educational and vocational decision. Many different types of maladjustment are explained—in part, at least—by physical condition.

Success and interest in the various school subjects. Many investigations have been made to show the significance of success in school subjects for predictive purposes. Despite the extensive evidence discrediting school marks, they have been found to be one of the most important single measures for predicting future achievement. A number of studies have yielded positive correlations of .60 to .80 between elementary-school and high-school records. One research has expressed the relationship by a simple correlation table, shown in Table 22.[1] The author contends that such a method of presenting data for prediction has the following advantages over the coefficient of correlation: [2]

TABLE 22

RELATION BETWEEN SUCCESS IN SEVENTH-GRADE AND EIGHTH-GRADE ENGLISH AND NINTH-GRADE LATIN

NUMBER OF CASES	MARK IN ENGLISH	PERCENTAGE DISTRIBUTION OF PUPILS ACCORDING TO MARKS EARNED IN LATIN					TOTAL
		A	B	C	D	F	
46	A	32.6	47.8	15.2	4.3	—	99.9
299	B	9.4	28.8	39.5	17.7	4.7	100.1
297	C	1.3	16.5	29.6	38.0	14.5	99.9
107	D	—	11.2	29.0	35.5	24.3	100.0
16	F	—	—	—	37.5	62.5	100.0

(1) The correlation table is easily made by any school worker without training or skill in statistical procedures.

(2) The data of such a table are intelligible to pupils, parents, and counselor. If the individual knows what level he himself has attained in the prognosis, he can express in simple arithmetical terms what the chances are that he will attain each of the various levels of success in the venture for which prediction is made. The coefficient of correlation, on the other hand, does not afford the counselor any definitive information to place before the pupil.

[1] P. W. Hutson, "Deriving Practical Instruments for Guidance," *Vocational Guidance Magazine* (now *Occupations*), Vol. XI (March, 1933), p. 249, Table 1.

[2] *Ibid.*, pp. 252–253.

(3) With such facts, counseling should be more easily possible and less dangerous for unspecialized educational workers to perform. This advantage is significant in view of the widely prevalent practice of making home-room teachers responsible for advising.

(4) The economy of group counseling, as contrasted with individual counseling, may be realized, since a correlation table like that reproduced above can be explained to a class and each pupil can be encouraged to determine its meaning for him.

In presenting the correlation table with its advantages as an instrument in guidance, it is recommended that the individual school create as many of such tables as possible. The meanings of scores on tests of prognosis, aptitudes, intelligence, and general achievement may in this manner be made evident to the pupil. Care must be exercised lest the number of cases be insufficient to rule out the element of chance. Because this hindrance operates to the disadvantage of small schools, correlation tables should be available with every published instrument of measurement. At present, such practice is rare. One example of such a table is that found in the *Manual of Directions* of the Orleans Solomon Latin Prognosis Test. [1]

Success in the high school bears a notable relation to success in college. After considerable experimentation with indices to college success, Dean Johnston of the University of Minnesota found that rank in high-school class "is the most valuable single measure of probable fitness for college work." [2] Evidence of the relationship may be observed in Figure 10, page 184.

Research has shown that rank in high-school class is more significant in forecasting college success than is the type of curriculum pursued. The significance of certain of the investigations in this field has been summarized in Chapter II. (See pages 19 to 22.)

Objective evidence on the relation of school marks to success in occupations is slight and does not yield any clear-cut deductions. This is partly because it is difficult to formulate a satisfactory criterion of success in occupations. Nevertheless, it should be apparent that the counselor will find the pupil's record of great aid in diagnosing for occupational potentialities. The pupil's achievement, together with his expressed interests, yields significant clues for vocational guidance to the counselor who knows the vocational relationships of the content and activities of the various school subjects.

[1] Published by the World Book Company, 1926.

[2] J. B. Johnston, "Predicting College Success for the High School Senior," *Vocational Guidance Magazine* (now *Occupations*), VI (April, 1928), 291.

The measurement of intelligence. Feingold summed up the many researches showing the relationship of intelligence to scholarship in the following words:[1]

> Generally speaking, in the three upper grades of the grammar school it varies from .4 to .7; in the high school, from .35 to .65; and for college students, from .3 to .5. . . . The reason for this diminution is that as the individual grows older, his interests become more fixed and his abilities more specialized.

Undoubtedly, intelligence test ratings are significant measures for the counselor to consult in advising pupils with reference to selection of curriculum, elective subjects, and college, but the size of the coefficients given above warrants caution. Reference has previously been made (page 21) to Dean Johnston's search for the most reliable basis of prediction of success in the university. He found that by averaging the percentile rank on intelligence tests with the percentile rank in high-school class he obtained the best instrument for prediction of success in the first year of the university. The combined measurement he called a college-aptitude rating. Table 23 shows the use of this prediction in a probability table. The University of Minnesota aids Minnesota high schools each year in determining the college-aptitude rating of their seniors and in using the rating for giving counsel.

With regard to occupational choosing, intelligence ratings constitute one of the important elements to be considered. Some knowledge of the intelligence of workers in various fields is available,[2] and while the ranges are great and measures of success in comparison to intelligence are not available, the differences are significant. Pupils should be advised of these differences and aided in the choice of an occupation for which they have enough and not too much general mental ability.

The value of measurements of intelligence for adjustive guidance cannot be overrated, although space permits only the briefest mention here. For example, reference may be made to the most frequently recognized type of problem pupil, the one who is failing. In the analysis of such cases, the item of native intelligence is the first to be canvassed. Does the pupil have the general ability which the subject implies? If he does not, his is a case for redistribution, assuming that an appropriate curriculum offering exists. If he does have sufficient general ability, the counselor seeks the cause of failure in his physical condition,

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[1] Gustave A. Feingold, "Correlation between Intelligence and Scholarship," *School Review*, XXXII (June, 1924), 455.

[2] For a brief summary, see Koos and Kefauver, *op. cit.*, pp. 297–307.

TABLE 23

THE RELATIONSHIP BETWEEN COLLEGE-APTITUDE RATING AND COLLEGE SUCCESS, AS EVIDENCED IN UNIVERSITY OF MINNESOTA FRESHMEN ENTERING 1923 TO 1927 INCLUSIVE [1]

COLLEGE-APTITUDE RATING	NUMBER ENTERING	NUMBER SATISFACTORY *	PER CENT SATISFACTORY
96–100	88	85	96.6
91–95	125	116	92.8
86–90	156	121	76.3
81–85	135	98	69.5
76–80	137	89	65.0
71–75	123	69	56.1
66–70	131	57	43.5
61–65	144	66	45.2
56–60	144	57	39.6
51–55	150	45	30.0
46–50	141	34	24.1
41–45	129	20	15.5
36–40	137	19	13.7
31–35	116	13	11.2
26–30	90	6	6.4
21–25	76	1	1.3
16–20	85	2	2.3
11–15	47	—	—
6–10	44	—	—
1–5	14	—	—
	2212	898	

* *Satisfactory* is interpreted as an average mark of C or better.

his efficiency in the use of time, his possession of the needed special abilities, his volitional adjustment, and so on through the gamut of possible causation.

General intelligence is a pertinent consideration in the treatment of disciplinary problem cases. Frequently a pupil presents a problem of this type because he has too much or too little intelligence to be effectively challenged and occupied by the intellectual fare placed before him.

It is no doubt true that in many schools mental-test data are inadequately recorded and their usefulness for counseling is thereby greatly impaired. The Committee on Standard Blank of the Department of Secondary-School Principals signified that for each intelligence test given, there should be recorded the date, name of the test, form, score, percentile rank, mental age, chronological age, and intelligence quotient.[2] Since there is considerable divergence in the intelligence quotients which various tests yield, the name of the test should be shown. The form should be recorded so that the same form will not be used twice. The advantage of showing percentile rank is that it indicates where the pupil stands in relation to his fellows, a measurement which is easily understood by the pupils and their parents as well as by the counselor. The usefulness of the other items in complete delineation of the pupil's general intelligence is apparent.

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[1] J. B. Johnston, *Who Should Go to College?* p. 21, Table II (with slight adaptation). By permission of the publisher, The University of Minnesota Press, Minneapolis, Minn.

[2] See Koos and Kefauver, *op. cit.*, p. 435.

The measurement of special aptitudes. The measurement of specific abilities obviously has much meaning for distributive guidance, since all the differentiated activities from which choices are to be made involve specific abilities to a greater or lesser degree. Standard achievement tests, such as the Stanford Achievement Test, are divided into subtests which constitute measures of aptitudes for mathematical, scientific, and linguistic activity. Strictly prognostic tests are available for the prediction of success in foreign language and branches of supra-arithmetical mathematics.

Research has been notably successful in devising tests of specific aptitudes for mechanical and musical activity. Of the former we read that "the mechanical tests are at least as effective in their field as the mental tests are for the academic field." [1] The Seashore tests of musical aptitude [2] have been proved to possess high value for the selection of students for advanced training in music.

The extent to which a school will utilize special aptitude tests will depend on its resources in money and personnel. Their importance is secondary to that of the general-intelligence tests.

A recent development in psychology that promises in time to yield significant measures of special aptitude is what is known as "factor analysis." Further progress must be awaited before use of the tests involved may be expected to yield definitive and practical results.[3]

The measurement of character and personality traits. Achievement is so largely conditioned by various character traits that it is important the counseler have as accurate an appraisal of them as possible. Hughes, on noting the relatively low correlation between general intelligence and success in the first college year, was able to account for many of the most glaring discrepancies between ability and achievement by turning to the ratings on character traits which had been given to the students in their last year of high school.[1] Young, in searching for predictors of success in high-school French, found none more significant than teachers' ratings on "industry." [2]

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[1] *Ibid.*, p. 315. This conclusion is drawn from Donald G. Paterson and Others, *Minnesota Mechanical Ability Tests*. University of Minnesota Press, 1930.

[2] Published by the Bureau of Educational Research and Service, State University of Iowa.

[3] Frances Swineford, "Factor Analysis in Educational and Vocational Guidance," *School Review*, XLVI (December, 1938), 760–762.

In promoting optimal adjustment to work, to leisure, to the requirements and opportunities of school citizenship, and so to life in all its manifold aspects, the counselor finds an evaluation of the pupil's equipment in traits of character and personality an indispensable aid. Adjustment often means the eradication of an undesirable trait and the cultivation of a desirable one. Strang has pointed out that adjustment is often the attainment of the golden mean between two extremes, as, the happy medium between "lack of initiative" and "too headstrong." [3]

Instruments for the measurement of character and personality traits have attained no such state of development as the tests of intelligence and special aptitudes. Consequently schools should turn to rating scales as affording the best present means of trait appraisal. The many researches which have been made in the field of trait rating have disclosed numerous pitfalls and yielded also some guides to sound practice. Among the most important principles to be observed in rating are:

(1) The traits on which pupils are to be rated should be carefully defined—preferably in terms of school behavior—so that the raters will have a common understanding of each of them.

(2) Raters should really know the people they rate.

(3) For reasonable validity, the rating of a pupil should be the average of the ratings of three or more teachers. Sometimes, however, separate ratings are more significant than the composite judgment. If the ratings on a single trait show considerable variation, that may tell us considerable about the pupil that ought to be known.

(4) A five-point scale seems to be the best. A larger number of gradations calls for finer distinctions than can usually be made, while a smaller number requires too slight a discrimination for value.

(5) The rater should not evaluate an individual pupil on all traits, and then proceed to a second pupil. Instead, the rating scheme should be so organized as to require the rating of all pupils on one trait, then the rating of all pupils on a second trait, and so on.

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[1] W. H. Hughes, "Why Intelligence Scores Are Not More Predictive of School Success," *Educational Administration and Supervision*, XII (January, 1926), 44–48.

[2] Josephine Young, *Deriving Practical Instruments for Predicting Success in High-School French.* M.A. thesis, University of Pittsburgh Library, 1933.

[3] Ruth M. Strang, *The Role of the Teacher in Personnel Work* (Revised and Enlarged Edition), p. 169. Teachers College, Columbia University, 1935.

(6) If the number of pupils to be rated is large enough to justify expectation of some approximation to a normal distribution on the rating scale, the rating forms and directions should be planned in such a manner as to compel the rater to distribute the pupils in accordance with the normal curve.

(7) If the number of pupils to be rated is too small to justify expectation of a normal distribution, best results can probably be obtained by the employment of a man-to-man rating scale.[1]

These principles have been exemplified in the experimental work of W. Hardin Hughes in the city schools of Pasadena, California.[2] Because of their common failure to respect these principles, the rating schemes generally employed by colleges on their admission blanks and by high schools in their cumulative record forms may well be regarded as yielding results of doubtful validity.

The measurement of adjustment. Some progress is being made in the development of valid tests and inventories for the objective appraisal of emotional stability, social adjustment, and kindred aspects of personality. Evidence is accumulating that such measures afford substantial aid in the detection and definition of maladjustments. Perusal of the literature on these instruments makes it evident that they may be used safely and effectively only by a person with extended psychological training.[3]

The measurement of vocational interest. Much research energy has been expended in the effort to construct objective tests or inventories which will accurately indicate vocational interests. The significance of such study lies in the very evident importance of considering interest as well as ability in selection of a vocation. Results, however, have been gratifying only with college seniors. The explanation seems to lie in the probability that discovered interests depend on experiences, that college seniors have had sufficient experiences in most cases to bring about the emergence of true interests, and that high-school pupils infrequently have had sufficient experience to have attained settled interests. Accepting such a view, the counselor of secondary-school pupils will learn all that he can, by inquiry and observation, about the discovered interests, interpret them for their vocational significance, and utilize them tentatively. But he will not forget to direct the pupil toward new experiences which may reveal additional and more fundamental interests.[1] It should be stated that, although the indications of interest obtained by use of vocational-interest blanks suitable for administration at the senior-high-school level may not have validity in prediction of occupational success, the use of the blanks is nevertheless warranted by the extent to which they stimulate concern of the individual for his occupational future.

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[1] Described in Harry D. Kitson, *The Psychology of Vocational Adjustment*, pp. 214–217. J. B. Lippincott Company, 1925.

[2] "A Rating Scale for Individual Capacities, Attitudes, and Interests," *Journal of Educational Method*, III (October, 1923), 56–65.

"Organized Personnel Research and Its Bearing on High-School Problems," *Journal of Educational Research*, X (December, 1924), 386–398.

"Refining the Estimates of Personal Qualities," *The Nation's Schools*, VII (February, 1931), 55–60.

[3] Percival M. Symonds, *Diagnosing Personality and Conduct*. Century Company, 1931.

Koos and Kefauver, *op. cit.*, pp. 363–369.

Robert G. Bernreuter, "The Theory and Construction of the Personality Inventory," *Journal of Social Psychology*, IV (November, 1933), 387–405.

Hugh M. Bell, *The Theory and Practice of Student Counseling*. Stanford University Press, 1935.

Graham C. Loufbourow and Noel Keys, "A Group Test of Problem Behavior Tendencies in Junior High School Boys," *Journal of Educational Psychology*, XXIV (December, 1933), 641–653.

Use of measurement and analysis in the treatment of failing pupils. One of the widest uses of pupil measurement and analysis is for the diagnosis of pupils who are failing, in order to give a sound basis for deciding on remedial measures. Studies of failures show that they are in large measure due to the fact that such individual diagnosis is not being made or cannot be made, or that action on the results of diagnosis is not being taken. Some policies and practices which tend to increase the number of failures in high school and which point especially to the necessity for studying the individual as a failure preventive are the following: [2] (1) Assignment of such large numbers of pupils to teachers as to discourage attention to the individual needs of pupils; (2) allowing teachers to fail large numbers of pupils without requiring an explanation of the causes of the failures; (3) allowing all entering ninth-grade pupils to elect four studies regardless of their previous performance or tests of ability; (4) the policy of deferring pupil-progress appraisals until the end of the semester; (5) the practice of allowing backward pupils to elect subjects that require better native ability and better previous preparation than they possess; (6) the failure of school authorities to organize adequate personnel records for individual pupils and to use these records in the educational guidance of pupils; (7) the tendency of teachers and schools to place the responsibility for success or failure solely on the pupil.

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[1] Koos and Kefauver, *op. cit.*, pp. 333–347.

Douglas Fryer, *The Measurement of Interests in Relation to Human Adjustment*. Henry Holt & Company, 1931.

[2] From a study by J. B. Edmonson quoted editorially as "Why Pupils Fail in High School," *School Review*, XXXIII (June, 1925), 402–404.

An example of a program for the diagnosis of failures and the administration of remedial treatment is that described by Thorne [1] as carried out in Portland, Oregon. In the public schools of that city the rule was established that pupils failing to earn 3 credits for two successive terms must attend a special high school, organized first in the spring term of 1930. At first some parents protested such a measure as disgracing their children. The answer was that their children were already in disgrace. The faculty of the school was carefully selected so as to include only teachers who were interested in pupils who presented problems. No teacher who does not evince a liking and an aptitude for the work is retained on the faculty more than one term. Classes are much smaller than in the regular schools, there are no extracurriculum activities to distract attention, and every effort is made to diagnose the difficulties of the pupil. The plan has been judged a helpful one. In the poorest term the percentage of pupils earning 3 or more credits was 52; in the best term it was 78. Many pupils return to regular high schools and do successful work. One of the advantages to be realized from the presence of a skilled counselor on the staff is the continued growth of the faculty in sensitivity to pupil problems.

Case study. Case study is the more detailed and thoroughgoing technique of diagnosis which is used to supplement the coarser methods that prove insufficient for the discovery of fundamental causation in various types of unadjusted, maladjusted, or perverted individuals. While the making of case studies is a task for a specially trained person, such an expert must lean heavily on teachers and principal for the discovery of problem cases, for the observation of their behavior, and for the administration of prescribed treatment. Consequently, the rank and file of school faculties cannot be any too well acquainted with the methods of studying the pupil. It must further be realized that the number of pupils who require the services of the case-study specialist depends in part on the extent to which there has been critical and sympathetic attention to each individual in the everyday activity of the classroom from grade to grade.

For the many schools which can have no specialist to make case studies, Pressey contributes the following outline as a guide to teachers in the carrying on of those activities:

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[1] Norman Thorne, "A High School Which Turns Failure into Success," *The American School Board Journal*, LXXXVIII (April, 1934), 23, 71.

I. History of Child's Family
    A. Medical History
    B. Social and Emotional History
    C. Intellectual History
    D. Educational and Economic History
II. History of the Child's Life to Date
    A. Medical History
    B. Social and Emotional History
    C. Intellectual History
    D. Educational (and Economic) History
III. The Child's Present Condition
    A. Physical Condition
    B. Social and Emotional Adjustment
    C. Intellectual Development
    D. Educational Adjustment[1]

The outline merely suggests how deeply a case study may probe. Securing the essential information is often a delicate task requiring great skill in the art of interviewing. To know what data to gather, how to gather them, and how to interpret them involves high intelligence and social judgment, supplemented by extended study in education, sociology, psychology, and physical health.[2] The employment of specialists for case study is exemplified in the personnel and procedure of the behavior clinic of Berkeley, California.[3] The clinic consists of a psychiatrist (part time), a pediatrician (part time), a psychologist (assistant director of the bureau of research and guidance), and four visiting counselors, each of whom devotes half time to the clinical social work. Main steps of the procedure of the clinic are as follows: [4]

> 1. Principals and teachers are asked periodically to report all serious behavior problems in their schools. . . .
>
> 2. For each child thus reported, principals and teachers make out a detailed record of objective evidence, indicating instances of his unsocial behavior. This report includes also items concerning the child's school record, as well as a rating of personality traits.
>
> 3. The staff of psychological and social workers furnish information regarding mental ability and interests, home environment, social influences, and any other data that can be gathered from psychological and social investigation.

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[1] S. L. Pressey, *Psychology and the New Education*, p. 253. Reprinted by permission of the publishers, Harper & Brothers.

[2] Ruth Strang, *op. cit.*, Chap. XIV and XV.

William C. Reavis, *Pupil Adjustment in Junior and Senior High Schools*. D. C. Heath and Company, 1926.

Elsie M. Smithies, *Case Studies of Normal Adolescent Girls*. D. Appleton-Century Company, 1933.

[3] Elise H. Martens and Helen Russ, *Adjustment of Behavior Problems of School Children*. United States Office of Education, Bulletin No. 18, 1932.

[4] *Ibid.*, pp. 11–13.

4. The pediatrician and the psychiatrist make physical, medical, and neuropsychiatric examinations of the child.
5. With all the evidence before them, the clinical staff sits in consultation, interviews teachers, principal, and parents, and makes recommendations for treatment. . . .
7. All developments in the case are followed by the visiting counselor, and periodic reports of progress are made by the school.

How different is such treatment from the retributive punishment meted out to behavior cases in the not-distant past! It signifies the practical application of the principles of mental hygiene. It assumes that the individual's behavior is largely to be explained by his previous experiences and by the environment in which he has been growing up. To remedy maladjustment is first to determine causation. Such procedure as that at Berkeley is calculated to instill in the entire school staff a modern way of looking at the individual and at their responsibility for him. It is further made clear that adjustment of the individual very commonly means adjustment of his environment—of his home, parents, teachers, daily schedule. The point of view of case study and a rudimentary knowledge of some of its techniques should be possessed by both the administrative and the instructional members of the high-school staff.

G. Pupil Records

Significance of records. The discussion of pupil measurement and pupil analysis which has just been concluded makes plain the significance of records in guidance. They constitute an inevitable component of any program for studying the pupil with a view to counseling him. Records are the means of capitalizing for guidance all the revelations of the pupil to his teachers and his parents through the years. Without records, there is little point in taking measurements of the pupil or in making critical observations of him. We have begun to appreciate that with adequate records, the counselor has some basis for his advising; he has tangible evidence to offer, which lends weight to his opinions and judgments.

Furthermore, not only are records an essential aid at times when the pupil is faced with the necessity of making a choice or when his adjustment is necessary, but their guidance value is apparently the main reason for making them and keeping them. Sixty judges, consisting of 47 principals of secondary schools and 13 university specialists in secondary education, ranked "To assist in guidance" as the most important of five uses of permanent record cards.[1]

Some examples of comprehensive records for guidance. For the Commission on Standard Blanks of the Department of Secondary-School Principals, Johnson carried on research [2] to determine by consensus of opinion the items which should appear on the permanent record card of the secondary-school pupil. The commission decided on the general form of an appropriate blank and included the forty items most heavily weighted and certain scattered ones below that point in the ranking. They prepared two tentative forms, one 5 inches × 8 inches and the other $8\frac{1}{2}$ inches × 11 inches. The latter is reproduced in Chapter XV under "Standardizing Recording Practices and Procedures." [3] Not only is space provided on the front of the card for the usual record of subjects taken and marks earned, but the back of the card shows the pupil's interests, abilities, and limitations as revealed by his extracurriculum record, his intelligence-test and achievement-test records, his personal traits, and his out-of-school employment. A few items to describe his home environment and an indication of his aspirations and ambitions are also included. The record in intelligence tests and achievement tests is expressed in several forms, of which PR (percentile rank) is perhaps as significant as any, because it enables the reader who is unfamiliar with the tests to see how the pupil stands in relation to his group.

Another record form useful in guidance, the result of careful study, has been devised by Ben D. Wood and E. L. Clark. It is in the form of a folder [4] the size of a correspondence-file folder and is intended to afford a comprehensive history of the pupil throughout grades VII to XII. The folder itself is ruled and headed for the record, but it is obvious that test papers, correspondence, and various other documentary evidence essential to the full understanding of the pupil can be filed within the folder and thus be readily available. The folder, ruled in wide columns, is for seven years. Ample space is provided for the recording of extracurriculum and vocational experiences, and also for

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[1] B. Lamar Johnson, "The Permanent Record Form in the Secondary School," *School Review*, XLI (February, 1933), p. 118, Table I.

[2] *Ibid.*, pp. 115–121.

[3] The same section draws extendedly on the findings of Johnson's investigation.

[4] Pictured, explained, and use illustrated in the Report of the Sub-Committee on Personal Record Cards of the American Council on Education, *The Educational Record Supplement*, No. 8, July, 1928, pp. 14–52. Also reproduced in Koos and Kefauver, *op. cit.*, pp. 436–438. Published by the American Council on Education, Washington, D. C.

"notable accomplishments—unusual experiences." One quarter of the entire folder—one of the outside surfaces—is free for "notes," being ruled only horizontally. Here, presumably, counselors will make notations of their conferences with the individual.

The constructors of this record form have illustrated its usefulness in the reference cited. At the close of one illustration, they say: [1]

> No one of the various bits of information that make up this record would justify any definite conclusion regarding this young man's abilities and interests. It is the *cumulative effect of objective observations concretely stated*, showing glimpses of his conduct under varying circumstances and spread out over a series of years, that delineates his real bent, that manifests the persistent interests that dominate his life, and that demonstrates the fortuitous character of his earlier choice of a profession.

Herein the authors have stated by implication the most important characteristics of a good record form. It is plain that this record form is constructed on the theory that a recording of specific examples of undirected behavior is highly important in revealing the individual—probably of greater significance than teacher ratings on abstract qualities.

The use of records for guidance. Concerning the use of records for guidance purposes, it seems that much will depend on the guidance personnel. If guidance is largely in the hands of a specialist, the records may be concentrated to his advantage; if the function is largely exercised by the entire staff of teachers in their capacity as home-room teachers, the records must be distributed. Obviously, the latter method seems to present the most problems, because of the difficulty of securing the measure of uniformity which is essential in the handling of records. In the formulation of any plan, it should be remembered that records have values for teaching as well as for guidance. They should be available to and used by all teachers, on the assumption that both functions can be more ably discharged if the teacher knows as fully as possible the nature of the individual who is to be taught or guided.

H. Placement and Follow-up

Placement methods and organization. After taking all the preliminary steps to help the pupil get his start in the occupational world, the guidance program is left unfinished if provision for placement is not made. In a large city system it is logical to have a central placement office because of various economies and advantages which can thus be effected, such as achieving better co-operation with employers and opening to each pupil who is leaving school the employment opportunities of a larger area and therefore giving him greater variety than is possible for the counselor of a single school. Obviously, such a central office cannot know the pupil intimately. Cordial relations must therefore be maintained with the school counselors, for it is they who must be relied on for extended records of the registrants.

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[1] *Op. cit.*, pp. 36–37.

A paragraph may be quoted from Reavis's recent description of guidance programs in order to show how the placement function is carried on in a large city:

> An effective central placement service is maintained in the Providence school system. The records of placements are kept on file in the central office, and placement contacts are made by the supervisor of guidance and placement in the Department of Research and Guidance. Many placements are also made through the shop instructors in the trade school, who use one half day each week in making contacts with employers as means of finding placements for their pupils. Counselors in the different schools keep in touch with pupils 15 to 16 years of age who are employed part time or on unskilled jobs. The placements made through the schools average about 1000 per year in normal times.[1]

As an example of the provision for placement in a city having only one high school, the same monograph may again be drawn upon for quotation from the description of the guidance program of the Joliet Township High School, an institution having an enrollment of approximately 3500:

> Perhaps the most arduous duties of the personnel director are those pertaining to placement and research. Most of the placements (about 500 per year) are made through the director. It is his responsibility to make the contacts with employers, to confer with the committee advisers regarding the applications for placement, and to set in motion the procedures which result in the contact between the employer and the pupil seeking employment. Satisfactory service by the director depends on accuracy of records, knowledge of pupils, parents, employment conditions, and the collection and interpretation of data pertaining to the pupil personnel.[2]

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[1] W. C. Reavis, *Programs of Guidance*, p. 69. National Survey of Secondary Education, Monograph No. 14. United States Office of Education, Bulletin No. 17, 1932.

[2] *Ibid.*, p. 109.

In smaller schools, placement may be a function of the principal or of some teacher to whom he delegates the work. It should in any event be planned for as a service which the school owes the pupils. Even though the school is small, there should be an active program for obtaining news of vacancies, selecting candidates to fill them, and aiding them in the approach to employers.

Follow-up service. In view of frequent shifting in employment after placement, some of which is certainly desirable, counseling in replacement is an essential part of the guidance program. Some authorities have contended that the school's guardianship over and service to youth in such respects as this should be continued until the termination of minority. In the vocational life of the young workers, issues are continually arising for the settlement of which they need wise counsel. If a worker is not succeeding, he needs to be helped in diagnosing the cause of his difficulty and in overcoming it. If he must make a decision between two courses of action, he will make it the more wisely for having had the opportunity to discuss it with a sympathetic adviser.

One of the outstanding examples of systematic follow-up, described by Allen,[1] is employed in Providence. The practice in that city is to have the class counselors make follow-up studies of their former classes one year, three years, and five years after they are out of school. Since the counselors serve a class during its entire three-year stay in senior high school, a personal relationship is built up that contributes to a larger interest in a follow-up study than could possibly obtain in a study made by the impersonal central office. Among the advantages alleged for this method are that it enables the counselor to evaluate his own work and to learn from his experience, that it helps the counselor to keep up-to-date in his knowledge of the occupational world, and that it brings right into the school many slants on the curriculum which are useful in its reconstruction. The procedures are outlined by Allen [2] with a detail which is helpful but too extended for quotation here.

ORGANIZING THE SCHOOL FOR GUIDANCE

The need for organization. It must be evident to the reader of this chapter that the features of the school through which guidance may and should be exercised are so numerous as to render necessary a systematic organization of them. A guidance program must comprehend all the avenues through which guidance is exercised, allocate responsibility for the efficient performance of each activity, achieve harmonious relationships between the several elements of the program, and integrate the program with the other activities of the school.

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[1] Richard D. Allen, "Continuous Follow-Up Survey in the Senior High School," *Vocational Guidance Magazine* (now *Occupations*), X (December, 1931), 105–110.

[2] *Ibid.*, pp. 106–108.

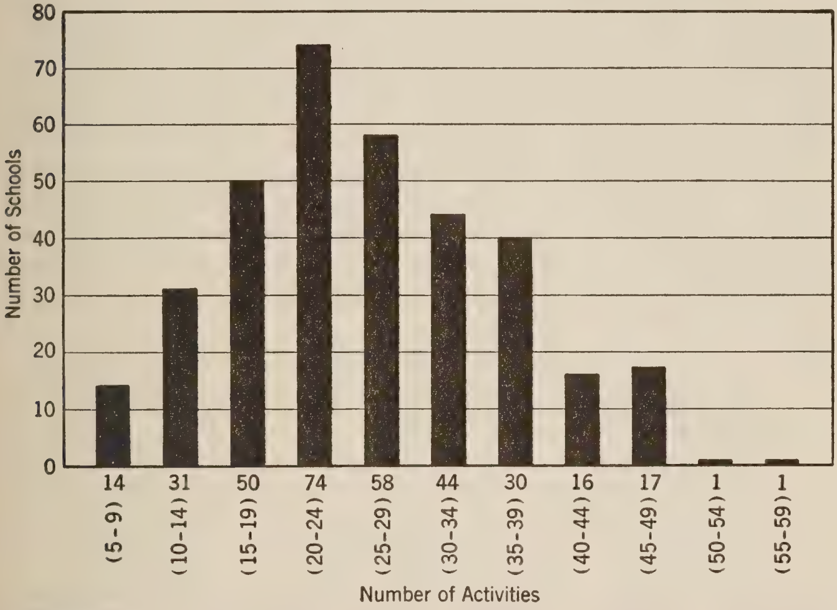

FIGURE 12. Distribution of 336 Secondary Schools According to the Numbers of Guidance Activities [1]

As evidence that there is now a problem of organization in the general run of schools, even though many have but partially developed programs, Figure 12 is presented. In the checking list which Koos and Kefauver used in their study of guidance practices, there were 71 items, not including those related to guidance organization or personnel. Figure 12 shows a distribution of the schools according to the number of activities checked. While the schools vary widely in the extent to which they practice guidance, the median number of activities carried on—not shown in the figure—is 24.9. It is not difficult to accept the opinion of Koos and Kefauver that "the number of practices is large enough in most of these schools to warrant serious efforts at setting them up into a co-ordinated and systematized organization." [2]

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[1] From Koos and Kefauver, *Guidance in Secondary Schools*, p. 512, Fig. 46. By permission of The Macmillan Company, publishers.

[2] *Ibid.*, p. 512.

Examples of guidance organization. Because of its clear analysis of functions and relationships, the hypothetical organization prepared by Sears is the first example of guidance organization to be examined. It is presented here as Figure 13.[1] The plan shows: [2]

> . . . a single executive head, responsible for the entire program. Under this head there might well be a single head of all staff service, responsible for getting together from the field, from books, and from children all the information needed. A second person of equal rank should be in direct charge of all line service up to the point where the child leaves school, responsible for the assignment of counselors, the grouping of children, the final arrangement of materials to be used in specific guidance instruction, and the supervision of all advisory service. A third officer of the same rank would have charge of appointment and follow-up work. Under each of these chief subordinates there would be a group of workers, depending in size upon the number of children and schools in the system.

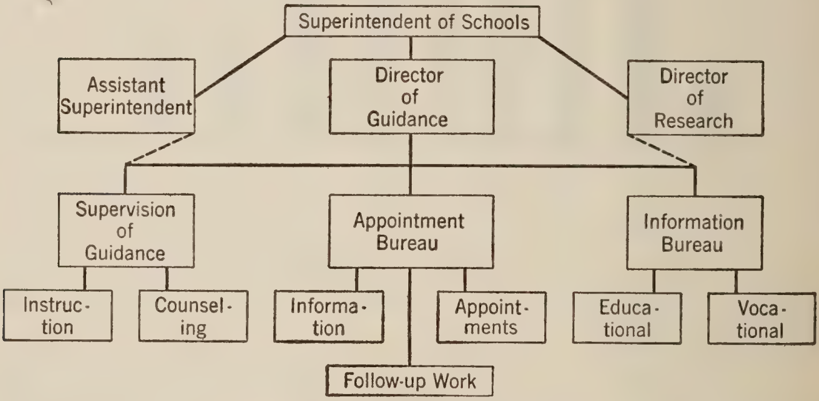

FIGURE 13. Plan of Organization for Guidance Service

It should be further pointed out that Sears's diagram distinguishes line and staff functions in guidance. The staff functions—gathering the information about pupils and about occupations on the basis of which the pupils are instructed and counseled—are appropriately carried on in close co-operation with the research department. Such an organization prevents wasteful duplication in the research program of the school. Similarly, the diagram signifies that the line functions of instruction and counseling must be carried on with the consent and active co-operation of the assistant superintendent and the principals who bear primary responsibility for the functioning of the schools.

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[1] Jesse B. Sears, *The School Survey*, p. 328, Fig. 11. Houghton Mifflin Company, 1925.

[2] *Ibid.*, p. 327.

The tendency in some cities, as described by Proctor,[1] to organize guidance under a bureau of research and guidance seems to be objectionable because it is confusing. Guidance is essentially a line activity, just as is instruction. It deals directly with pupils and seeks to confer direct benefits on them, just as does instruction. It should not, therefore, be directed from a central organization which is devoted to staff duties. A central bureau of research should be thought of as organized to gather the essential information on the basis of which all line functions are carried on more efficiently—instruction, guidance, and administration of curriculum, finance, and buildings.

Sears's diagram is prepared partly in terms of functions and partly in terms of functionaries. A city school system of some size is implied. Figure 14, page 226, may be helpful to show how the several aspects of guidance activity can be cared for in a small high school with no special guidance personnel. This plan assumes the extended use of the major portion of the faculty as home-room teachers. Whether it is preferable to other plans is not known. Koos and Kefauver, in their survey of 336 secondary schools, found the most common type of guidance organization in schools of from 200 to 1000 pupils to comprise the principal and home-room advisers.[2] Figure 14 is an attempt to show how to make the most of this common type, supplemented as indicated, in order to have all the essential elements of a guidance program.

Among existing organizations of which printed descriptions are available, considerable variation prevails, and practically none shows clearly the allocation of all the necessary elements of a guidance program. A characteristic of a few is the utilization of specialists to a notable degree. Of these, the house-principal plan, developed in Detroit and employed in some of the high schools of that city, is most distinctive. By this plan the student body of a school is divided into groups of 200 to 300 and each group assigned to a large room known as a house. In charge of the house is a special teacher, known as a house principal, who has full responsibility for administrative routine, personnel matters, and study supervision, for the house is study hall and home room to its members. The house principals are relieved of teaching respon-

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[1] William M. Proctor, *Educational and Vocational Guidance*, Chap. XV. Houghton Mifflin Company, 1925.

[2] *Op. cit.*, p. 518, Table LXIV.

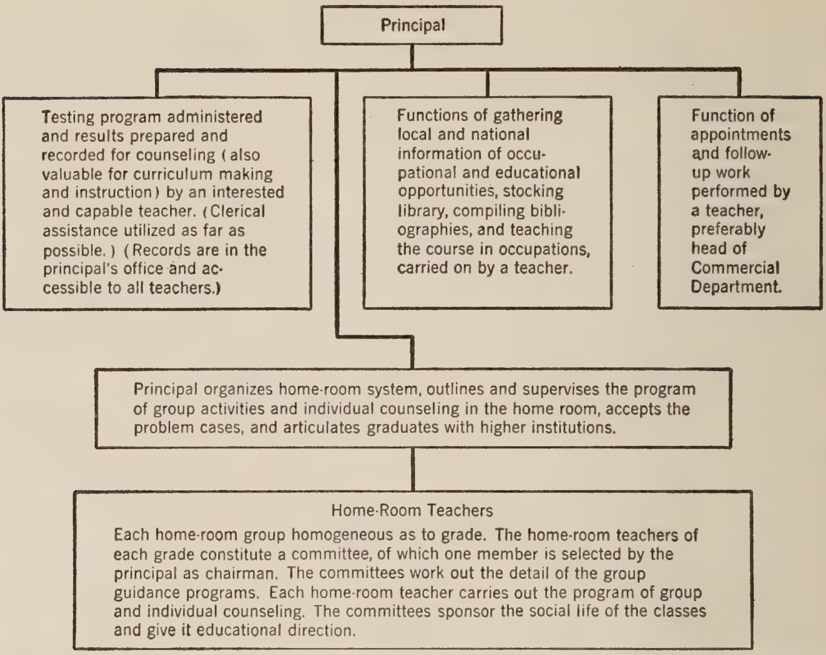
Principal
Testing program administered and results prepared and recorded for counseling (also valuable for curriculum making and instruction) by an interested and capable teacher. (Clerical assistance utilized as far as possible.) (Records are in the principal's office and accessible to all teachers.)
Functions of gathering local and national information of occupational and educational opportunities, stocking library, compiling bibliographies, and teaching the course in occupations, carried on by a teacher.
Function of appointments and follow-up work performed by a teacher, preferably head of Commercial Department.
Principal organizes home-room system, outlines and supervises the program of group activities and individual counseling in the home room, accepts the problem cases, and articulates graduates with higher institutions.
Home-Room Teachers
Each home-room group homogeneous as to grade. The home-room teachers of each grade constitute a committee, of which one member is selected by the principal as chairman. The committees work out the detail of the group guidance programs. Each home-room teacher carries out the program of group and individual counseling. The committees sponsor the social life of the classes and give it educational direction.

FIGURE 14. Suggested Allocation of Guidance Functions in a High School Enrolling 200 to 500 Pupils

sibility that they may be specialists in their principalship, and, complementarily, the teachers are relieved of home-room duties that they may more completely specialize in teaching.[1]

The plan employed in Providence exemplifies the considered use of class counselors.[2] Each of the secondary schools is staffed with six counselors. As each class enters the school, it is associated with one of the counselors, and that counselor is continuously in charge of the class until it is graduated. Twice a week the pupils meet in class-size groups with their counselors for instruction in occupations, for educational orientation, and for consideration of problems in adjustment which may be effectively handled by group discussion.

> Of a 25-period load per week, each of the class advisers is given one period a day for individual conferences for each 200 to 300 pupils in his class. . . .

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[1] Editorial, "The House Principal," *School Review*, XXXII (April, 1924), 247–248.

[2] Described in W. C. Reavis, *Programs of Guidance*, Chap. VI. National Survey of Secondary Education, Monograph No. 14. United States Office of Education, Bulletin No. 17, 1932.

> The adviser will have less than 10 hours per week scheduled in other school subjects.[1]

The home-room teacher is recognized in the Providence plan, but plays a distinctly minor role. Much of the staff service supporting the program is carried on by a central department of research.

In Figure 15, showing the guidance organization of the Joliet Township High School and Junior College,[2] the guidance program is in charge of a personnel director who works primarily through 38 "committee advisers."

> An individual committeeman usually is assigned 100 freshmen on their admittance to the secondary school. These pupils are retained during their membership in school, the committee adviser being responsible for the advisement of the pupils with respect to choice of curriculum, registration, progress in classes, membership in school activities, choice of college, and employment. The committeeman is available from 11 to 12 o'clock daily for conference with pupils either individually or in groups. This service is rendered in addition to regular teaching duties, but compensation of $100 per year is allowed. . . .
>
> The home-room teacher is not an adviser but an administrative officer, having charge of a group of pupils one period daily, for purpose of record and supervised study.

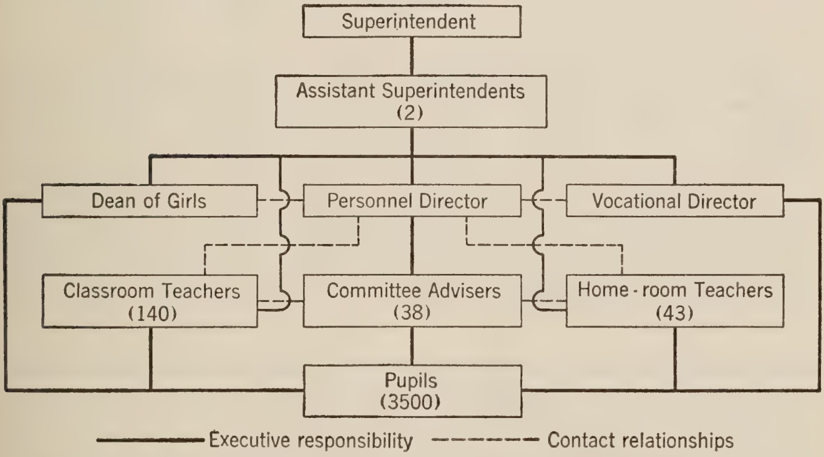

FIGURE 15. Organization of the Personnel Department of the Joliet Township High School and Junior College

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[1] *Ibid.*, p. 65.

[2] W. C. Reavis, *op. cit.*, p. 105, Fig. 16.

It will be apparent that while the Joliet plan places the guidance program in the hands of teachers, it permits the choosing from a faculty of 140 of the 38 who are best adapted to personnel work.

Another plan of organization, shown in Figure 16,[1] has been employed in another Illinois township high school. As in the example immediately preceding, the chief executive officer is entitled *superintendent* and is responsible directly to a board of education. The two principal line officers in this figure—deans—not only supervise counseling within the school but exercise the appointment and follow-up functions as well, which in the case of the school represented consists primarily in helping pupils to choose the right institution for continuance of their education. One of the features for which this plan seems notable is its provision for the use of varying degrees of expertness in guidance—the deans as trained specialists, the chairmen as teachers possessed of unusually keen interest in pupil problems and some qualities of leadership, the adviser room teachers to meet the pupils daily in class-size groups and counsel them individually and collectively. The New Trier plan also presents a close-knit organization which makes it easier to administer a program with accuracy and efficiency than is possible in many schools where there are no intermediate officers between the counselor or principal and 50 to 100 home-room teachers.

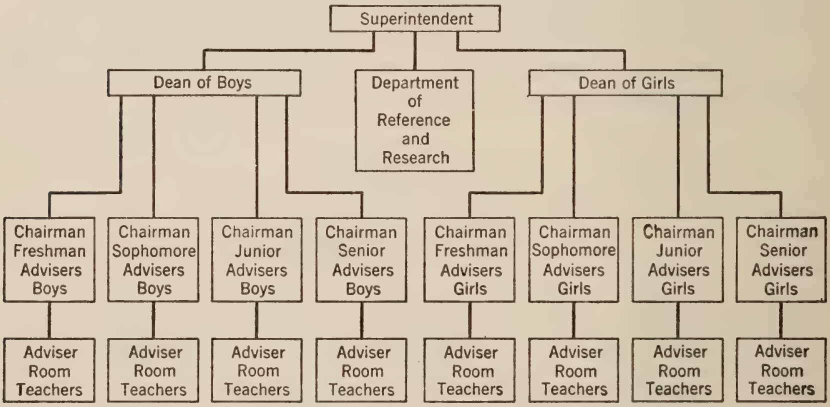
Superintendent
Dean of Boys
Department of Reference and Research
Dean of Girls
Chairman Freshman Advisers Boys
Chairman Sophomore Advisers Boys
Chairman Junior Advisers Boys
Chairman Senior Advisers Boys
Chairman Freshman Advisers Girls
Chairman Sophomore Advisers Girls
Chairman Junior Advisers Girls
Chairman Senior Advisers Girls
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers
Adviser Room Teachers

FIGURE 16. Organization for Pupil Personnel Work in the New Trier Township High School, Kenilworth, Illinois

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[1] Adapted from a mimeographed chart obtained in 1927 through the courtesy of F. E. Clerk, at the time superintendent of the New Trier Township High School, Kenilworth, Illinois.

The economy of group counseling can be realized in the New Trier organization, because grouping the pupils according to class and sex brings together those who have common problems. To a certain extent, also, the plan permits the advantageous employment of the varied interests and capacities of the teachers in their assignment to advisory groups. A final feature to be noted in this chart of organization is the department of reference and research, which is a provision for staff service enjoyed by few individual high schools.

The variation in these patterns of organization is such as to make it plain that there are no standard practices. None of these plans has any support from research; hence none is to be blindly copied. They are described with a view to stimulating the imagination of the administrator who bears responsibility for the performance of the guidance function. The organization of each school and school system must be thought out in the light of the ends to be attained, the clientele to be served, and the resources with which to work. For the various elements of a guidance program, definite responsibility should be fixed. Care should be taken that the organization does not go so far in certain directions as to neglect some important aspects of guidance. Results should be studied and the organization should be judged by the findings.

The personnel in guidance. Throughout the foregoing sections of this chapter are scattered many conceptions of guidance workers. The problems of guidance, the features of a guidance program, and, finally, the types of guidance organization could not be discussed without touching upon the personnel for guidance. At many points the term *counselor* has been used to identify the person who counsels the individual pupil. The word was used in its generic meaning, for it is readily evident that the pupil is often counseled by schoolworkers who bear such titles as *principal*, *home-room teacher*, or *dean*. To supplement the incidental mentions of personnel, it seems desirable to conclude the chapter with a brief direct treatment of the chief personages who are associated with guidance activity.

Koos and Kefauver found that the schools they surveyed had guidance functionaries of the types and with the frequencies indicated in Table 24,[1] page 230. This table shows, as is commonly known, that the larger the school, the greater is the use of special functionaries. In the smaller schools the principal personally performs the guidance function. Schools of middle and large size most frequently use home-room advisers.

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[1] *Op. cit.*, p. 516, Fig. 48. By permission of The Macmillan Company, publishers.

TABLE 24

Percentages of Secondary Schools Provided with Certain Guidance Functionaries (*Adapted*)

Guidance Functionaries	School Enrollments		
	Under 200	200–999	1000 and over
Dean of girls	29.7	45.6	73.1
Dean of boys	13.5	27.7	46.2
Home-room advisers	21.6	66.0	88.2
Large proportion of advisers	21.6	24.8	7.5
Counselors	2.7	10.2	28.0
Guidance committee	2.7	4.9	20.4
Visiting teacher	5.4	6.8	19.4
Principal personally advising students	64.9	53.4	29.0

This means, of course, that as schools grow larger, the principal tends to delegate advisory duties to the teaching staff. The second most frequent of special functionaries is the dean of girls, and the third is the dean of boys. Persons bearing the title of *counselor* are relatively uncommon. Concerning all the specialists mentioned, it must be borne in mind that many carry part-time or full-time teaching schedules.

Some light on the activities of these functionaries in actual practice is to be gained from Table 25, based on data from the survey by Koos and Kefauver.[1] The phases of activity which comprise the upper half of the table are not properly *guidance*, as defined in this book, although they must frequently bear close relation to guidance, especially in its adjustive aspect. The activities named in the lower half of the table are clearly guidance activities. A sharp impression conveyed by the table is that the functionaries listed are much more frequently occupied with activities which are on the periphery of guidance than with guid-

TABLE 25

Percentages of Functionaries Engaging in Certain Phases of Activity

Phases of Activity	Deans of Girls	Deans of Boys	Home-room Advisers	Advisers	Counselors
Control of attendance	47.6	59.1	—	—	—
Discipline	56.6	77.1	69.0	69.7	41.7
Oversight of social conduct	85.0	67.2	65.5	66.7	43.8
Direction of special home-room activities	—	—	74.8	—	—
Supervision of extracurriculum activities	73.4	66.7	—	—	—
Guidance concerning quality of work	41.6	57.6	61.9	77.3	52.1
Curriculum guidance	31.8	44.8	61.5	47.0	60.4
Vocational guidance	23.1	31.4	29.2	15.2	43.8
Placement	25.4	28.6	—	10.6	29.2
Follow-up	15.6	23.8	—	10.6	29.2

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[1] *Ibid.*, adapted from figures 52, 53, 54, pp. 534, 546, and 563, respectively. By permission of The Macmillan Company, publishers.

ance proper. The percentages of these workers who engage in vocational guidance, placement, and follow-up are so small as to suggest that in many schools these activities are not systematically cared for. That the principal himself makes up for the deficiency is a possible explanation, but not a plausible one. A second impression gathered from the table is that persons bearing the designation *counselor* in the table are less frequently concerned with discipline and the oversight of social conduct, and more frequently concerned with elements of distributive guidance, than are the other functionaries.

The counselor. In schools which have designated a member of the staff as counselor there is undoubtedly an expectation that he is to discharge the function of guidance. Anyone who is broadly familiar with school practice, however, recognizes that there is wide variation in the activities of counselors. It is no standardized position, but is largely made by the principal or higher authorities in the individual school system, and by the incumbent himself. Following the definition of guidance given in this chapter and the features of a guidance program which have been described, it would seem that the counselor ought to be possessed of a measure of directive and supervisory ability and the capacity to budget his time advantageously so that no important elements in the program are neglected. While he must have records, for instance, he must use good judgment in determining the amount of time which he can spend in their preparation, or he will not have time to use them. While he must study the individual "misfits" and seek to adjust them, he must guard against spending a disproportionate amount of time on them. Obviously, the amount of individual interviewing that the counselor can do will vary with the enrollment of the school and the fraction of his time that is available for counseling. Even the full-time counselor should not be expected to do all the individual interviewing that is necessary in a school with an enrollment as large as 1000.

As an example of the staffing of a school with counselors, the Berkeley, California, senior high school may be mentioned. As described in 1925,[1] this school of 2000 pupils was staffed with a full-time counselor and six assistant counselors, each of whom taught two classes a day. Though home-room groups existed for certain purposes, each pupil was advised individually by one of the counselors in the selection of his subjects, the making of his schedule, and the correction of any maladjustments which arose.

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[1] Elise H. Martens, "A High-School Counseling System in Operation," *Journal of Educational Research*, XI (January, 1925), 17–24.

The counselorship has not yet become sufficiently professionalized to be attained through successful completion of an established course of training. New York and Pennsylvania have established state certificates for counselors, but in the latter state the certificate is not mandatory. The general practice in selecting counselors is to choose a teacher, and personal and professional qualities are commonly given consideration rather than the completion of specialized training. Assuming this situation, Allen has suggested "five screens for selecting counselors." [1] They are superiority in (1) subject teaching, (2) pupil-teacher relationships, (3) teacher-teacher relationships, (4) interest in records and research, and (5) professional attitude. For each of these screens he gives more detailed description than can be reproduced here and demonstrates how inability to pass any one of them unfits the teacher for a counselorship. Such a device is undoubtedly superior to a score card, which may obscure a fatal weakness in a high total score.

The home-room teacher. Evidence has already been submitted to show that far more schools rely on home-room teachers for the performance of guidance than on counselors. Practically, this means that guidance is not considered a function for specialists, but one which is to be discharged by the rank and file of teachers. A plausible reason for this attitude is that the home room originated as an administrative and clerical convenience. When schools became too large for the principal himself to contact all the pupils, he delegated to the teachers the responsibility for bringing administrative policies and practices to bear on the individual pupil. To duties in the nature of guidance, discipline, and training, it was not a long step. Soon the home-room teacher became the person to whom the pupil looked for counsel and direction.

Practice in the use of the home room and the home-room teacher has varied widely, and not all this variation has been due to the presence or absence of guidance specialists in the school. Much of the variation has been owing to varying recognition of the possibilities of the home room or to varying sensitiveness to guidance problems. A survey by Kefauver and Scott,[2] which was a canvass of 75 junior high schools, 19 senior high schools, and 36 four-year high schools widely scattered over the country, showed a range of from 20 to 300 minutes per week in the time available for home-room activities, with medians of 118.5

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[1] Richard D. Allen, "Selecting Counselors in Secondary Schools," *Vocational Guidance Magazine* (now *Occupations*), X (November, 1931), 68–72.

[2] Grayson N. Kefauver and Robert E. Scott, "The Home Room in the Administration of Secondary Schools," *Teachers College Record*, XXXI (April, 1930), 624–641.

minutes for the junior high schools and 173.3 for the senior and four-year high schools. The schools were found to vary widely in the number and kind of activities which were carried on in home rooms, and there was also exceedingly wide variance in the practice of teachers within a single school. Practically the only guidance activities carried on by home-room teachers in as many as three quarters of the schools were those in the nature of curriculum guidance. Quite evidently the divergence in home-room practice, extending even to the individual school, is chargeable to the failure to have any kind of concerted program worked out by the principal or faculty. Such must be the inference from the fact reported by Koos and Kefauver that in fully two thirds of the schools they canvassed, the teacher was left to his own resources in developing a program of home-room activity.[1]

Plans for the distribution of pupils to home-room groups and for the assignment of teachers are varied, and none has any basis except in opinion. One of the plans urged as advantageous in the organization and administration of home-room groups has been described by Cowing [2] as four-year home rooms. By this plan the teacher starts with an advisory group of ninth-grade pupils and continues with the same group until their graduation; or all grades are represented in the home-room group, a few freshmen being added each semester to replace the seniors as they graduate. The advantage urged for this plan is that the teacher can become closely acquainted with each pupil through the long association. In favor of having all grades represented in the group, it is pointed out that the teacher has only a few new pupils to study at a time and that the older ones will help to orient the younger ones in the school.

Opposed to these considerations, and favoring a plan by which the pupils of an advisory group are all of one class and change sponsors every year or every two years, are several arguments. One is that when the pupils are all of one class, they have such common interests that group conferences and group programs can profitably be used in their guidance; a graded curriculum of advisory sessions can then more easily be worked out to serve the whole school. The main reason to be urged for changing the pupils' home-room teachers is the teachers' varying capacity for the work of counseling. Under the four-year plan the pupil may be assigned to a good home-room teacher or he may be assigned to a poor one; he is then fortunate or unfortunate for the duration of his high-school career. Such a plan is certain to work out very unfairly for some pupils. Changing advisers every year or two years is more likely to equalize the guidance service given each pupil.

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[1] *Op. cit.*, p. 554.

[2] Helen H. Cowing, "Four-Year Home-Rooms," *School and Society*, XV (June 10, 1922), 627–629.

In current practice the main obstacles to the adequate functioning of a home-room system as a guidance device are several. First, there is an insufficient time allowance in the teacher's load for real personnel work. In most high schools, the teacher meets five or six classes a day and has some study-hall and extracurriculum responsibility besides. The home-room work is an additional burden, and the teacher ought not to be expected to devote detailed study to it under such circumstances. Second, there is inadequate direction or assistance from the office; the home-room teacher is too largely left to flounder along and prepare his own program of individual and collective counseling. Third, teachers tend to be specialists in subject matter and to have little training, ability, or interest in the task of counseling. Some have much less fitness than others for the work, but even the best can hardly be expected to possess the technical knowledge and skill which typifies the specialist in guidance. That none of these difficulties is insurmountable has been demonstrated by a few schools.

It may seem to some that these obstacles point to the desirability of putting the work of counseling into the hands of specialists. "Let the teachers teach" is heard in some circles. What is the reaction of the teachers when they are as completely relieved of personnel work as is the case in a house-principal plan of organization? Do they become narrower specialists in subject matter than ever, tending to exalt subject matter and to forget that they are teaching children? Do they fail more often to envisage the whole pupil and his welfare, leaving the task of overcoming depersonalization wholly to the specialist and making it more difficult for him to accomplish that end? These are questions to which the high-school administrator must give due consideration. It is now sometimes urged that our high-school teachers have too largely the outlook of specialists for a school with such broadening purposes as our secondary school. Conceivably a situation in which *some* study of the individual pupil and his needs is required of the teacher must influence the teacher's views of the purpose of his subject, lend perspective to his vision of its place in the curriculum, and improve his skill in setting up learning situations, because he is in closer touch with the pupil's life and interests. Objective studies are needed to shed light on some of these questions.

Consideration of the home-room teacher cannot be concluded without pointing out implications for the supervisory program of the school. If the counseling function is to be carried on mainly by the rank and file of the staff in their capacity as home-room teachers, rather than by specialists, good results will depend on careful supervision. To induce a whole faculty to accept the counseling function and become practiced in it necessitates the exercise of skillful supervisory leadership, the treatment of which is beyond the scope of this book.

The visiting teacher. With increasing frequency, schools both elementary and secondary are employing the services of a visiting teacher. In brief explanation of the functions of this member of the staff, a published description may be quoted.[1]

> Who is the visiting teacher? She is a teacher who has, in addition to her other qualifications, a knowledge of psychology and psychiatry and mental and physical hygiene. She also understands social work, so that she is acquainted with every agency that can be brought into action to help the "problem" child. She has no class and is therefore free to visit the homes, to help the parents and the teachers with different cases. She can adjust her time so as to go in the evening or on Saturday afternoon when the father is at home or during school hours when the child is not present to hear himself discussed. She visits the home and talks over with the parent the child's habits, health, recreation, and playmates and his reactions to his home and school. Frequently the parent is finding the child as much of a problem at home as the teacher is in the school. The parent and the visiting teacher give each other help in planning an adjustment for the child. The busy parent who is engaged in business or in a profession is glad to take advantage of this help. The home is made better through the visiting teacher's knowledge of methods of adjusting the exceptional child, and the parents become better acquainted with the modern school. The class teacher in turn is made acquainted with the personal problems of the child, and thus there is built up a unity of endeavor in helping the child to solve his problems and to adjust himself to school and to life.

One of the reasons for the increasing number of visiting teachers is the present movement to displace the old-time truant officer with this higher type of worker. This change is clearly an outgrowth of the dissatisfaction over the past treatment of truancy with retributive punishment.

In the Minneapolis high schools are both counselors and visiting teachers. It might be expected that some difficulty would be encountered in differentiating the activities of the two functionaries. Investigation by use of the diary method, however, revealed that differentiation had been rather well accomplished. The results as presented in the *Vocational Guidance Bulletin*, a publication of the Minneapolis public schools,[1] showed that 79.6 per cent of the problems handled by the counselors were classifiable as educational and vocational guidance, while 85.5 per cent of the problems taken up by the visiting teachers were in the realm of social and personality adjustment.

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[1] Margaret Knox, "The School, the Maladjusted Child, and the Visiting Teacher," *Elementary School Journal*, XXVIII (November, 1927), 176–177.

In concluding this presentation of provision for guidance personnel and organization, it may be said that such provision waits primarily on a more general understanding and acceptance of the guidance function by school administrators, boards of education, and the public. We are still too largely bound by college-preparation traditions and by a vision of the school solely as a training and not as a "finding" agency. There is a need for disseminating an understanding of larger responsibilities and opportunities of the school as a social institution.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Make a survey of the guidance program of any high school with which you are familiar and to which you have access.
2. Outline a plan for effective guidance of pupils with reference to election of one of the following subject fields: Latin, commercial subjects, mathematics, vocational shop, French.
3. By interview or written inquiry, determine the actual procedures of home-room teachers in exercising curriculum and vocational guidance.
4. For some school you know, draw up a practical plan for pupil registration and scheduling which affords adequate guidance for choice of subjects.
5. Check the vocational and educational ambitions of a class of high-school seniors against their scholarship, and try to determine how well they have been guided.
6. Outline the topics and procedures of a series of home-room conferences bearing on college guidance for high-school seniors.
7. In general, how should the home-room group conference compare or contrast with class activity in a school subject?
8. Gather evidence through reading or through interview concerning methods of administering failing pupils. Evaluate.
9. Make a case study of some genuine "problem" pupil.
10. Make a survey of the attitudes and understandings of a score of home-room teachers toward their home-room work.
11. Debate the issue of making the rank and file of teachers responsible for curriculum and vocational counseling or of delegating that function wholly to a specialist.

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[1] Quoted editorially in *School Review*, XXXIX (September, 1931), 487–489.

12. Examine the curriculums of a dozen prominent schools of education to determine roughly what attention is paid to training secondary-school teachers to exercise the guidance function.
13. Examine programs of studies of a number of junior, senior, and four-year high schools to note to what extent they have been set up to facilitate guidance.

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Chapter VII

Administering the Program for Individual Differences

INDIVIDUAL DIFFERENCES AND THE PROGRAM FOR RECOGNIZING THEM

Background of the need for provisions for individual differences. No one would now question that there have always been individual differences among pupils in our secondary schools, although those in charge of the schools of a generation or more ago were far from being as aware of these differences as we should be if the same schools were in existence today. The reason for this greater awareness would be the scientific movement in education which has in recent decades revealed these differences for us. However, the differences among pupils are unquestionably greater today than they were a generation or two ago because of the far-reaching influences on the school population that have been at work in the interval. These influences, or factors, are reviewed at a later point in this chapter and are suggested also near the opening of the chapter on the guidance program; but it seems desirable to anticipate these influences briefly before detailed discussion of the nature of individual differences.

It is now a generation since Leonard P. Ayres reported his famous study, *Laggards in Our Schools*, which called attention for the first time to the astonishing extent of retardation in the schools. Consideration of the findings of this early objective study and the host of age-grade investigations which followed it prompted efforts to move children through the schools more nearly at the rate of a grade per year. Although there are, doubtless, some systems and schools relatively untouched by the influence, most schools have been affected by it, and the aim in many schools is to move pupils forward regularly (or almost regularly) and to adapt the work to youth rather than youth to the work.

The earlier retardation referred to kept pupils of less ability in grades below those in which their ages would normally place them, and repeated failure operated to discourage such pupils from further attendance—to eliminate them. The absence of opportunities for employment for youth (brought on by technological development), backed by compulsory attendance laws, has operated to keep these youth in school. The movement to promote them regularly, already referred to, has combined with retention to make the less capable pupils an increasingly larger proportion of the total enrollment in middle and upper secondary-school grades, thereby greatly complicating the problem of providing for individual differences, as compared with conditions in the schools of earlier periods.

Individual differences peculiar to all traits and to all combinations of traits. Individuals grouped together for purposes of mass instruction will differ, one from the other, in all single traits and in all combinations of traits. This seems to be an incontestable condition from which there is no exception. Ample evidence is furnished by numerous studies to support this assertion. These studies, taken as a whole, have included a considerable proportion of all traits possessed by man. In some studies, as in the case of certain anthropometric measurements, single, or isolable, traits have been investigated. In other studies, as when general mental capacity is measured, significant traits of a more composite character have been studied. Without exception, when a group of individuals has been subjected to measurement, individual differences with respect to any single trait or to any combination of traits have been found to exist, the amount of variation and the nature of the variation being dependent on the trait studied and on the nature of the sampling of the individuals possessing the trait.

Definable traits provide the basis for a program of recognition. A given individual possesses almost countless traits. Psychological terminology has not sufficiently advanced to delimit the meaning of every trait. Even if all traits were standardized as to meaning, it is more than likely, so numerous are the single traits, that an attempt to provide for all of them in any program of administration would be highly impracticable. Therefore, in providing programs for the recognition of individual differences among pupils, it becomes necessary for purposes of administration that certain definable traits, occurring either singly or in combination, be considered basic and that the undefinable and less basic traits be assigned to subsidiary roles. Definable traits which are somewhat basic to the success of the individual in his schoolwork include traits like general mental ability, interests, mental health, mathematical ability, and the like. The administration of a successful program will seek to include the more definitive traits and to exclude those more vaguely defined. Even after deciding that the program shall be so restricted, considerable administrative ingenuity will be called for to effect a final workable plan.

Practicable provisions can most conveniently be based on measurable traits. Practicable provisions for individual differences can be made more intelligently when the differences are expressible in quantitative terms. Some traits, but far from all, can be measured with a sufficiently high degree of accuracy to make possible a reckoning of the amount of variance within a group and thus to permit a mathematical computation of the existing diverseness within that group. Once the nature of the differences is known and the amount of the differences computed, a program which takes into account both factors—nature and amount—can be formulated.

Some traits, such as height and weight, can be measured with as high a degree of accuracy as might be wished. For school purposes, however, the more accurately measured traits are not always of the greatest importance. In consequence, accuracy may sometimes be sacrificed for practicability. While less accurate than the measures of some physical traits, the measurement of subject achievement and of intelligence can be made within limits of error small enough to make such measures valuable for the administrative purposes they are suited to serve. Measures of certain other traits, like will-temperament, interests, aggressiveness, mental health, honesty, and similar traits, while not so accurate as any of the reckonings just mentioned, still afford sufficient valuations to be serviceable for some purposes.

Hence a considerable number of traits are definable and measurable within varying limits of error. These must provide the bases for provisions designed to take into account the nature and extent of individual differences among pupils. When quantitative measures of traits can be secured, statistical procedures are available to the principal or other administrative officer trained to use them, and he can either compute the reliability of any measure he uses or interpret the computations of others who may have previously reckoned the degree of reliability of any measure. In this way he will know about how much dependence to place in measures at his disposal.

At present, a principal can have complete confidence that individual differences do exist; that some of them can be measured; and that the knowledge at his disposal of the nature and the amount of individual differences can serve as a basis for defining a program which will adequately provide for them.

The program must provide for wide variations. All studies of the individual differences of pupils in any of the grades of the secondary school have shown that wide variations with respect to any identifiable trait are always to be expected. Such variations, however, even within the same grades of different schools, are not found to be the same in extent. Rather, in amount they are peculiar to the individual grade and to the individual school. The situation as it sometimes exists may be illustrated from the status of individual differences found within two representative grades of the secondary school—grades VII and IX.

Grade VII is often a centralizing grade. Its pupils may come from Grade VI of a number of different schools. It is not at all unlikely that the policies or standards of instruction in the different schools from which these pupils come are not uniform. The pupils from one school will come to do the work of Grade VII with a better preparatory foundation than will the pupils from another school. This variation adds to the heterogeneity of the pupil personnel of the grade. Again, the intelligence and economic and social status of pupils varies from one elementary school to another in any city. While instructional standards in Grade VI of two different elementary schools may seem to be equal and while marks of achievement of the pupils in both schools may cause the achievement levels to appear to be about the same, there may still be marked differences between the two groups in their ability to do the work of Grade VII. The fact that the junior-high-school pupils come from a number of elementary schools introduces a factor which accentuates the heterogeneity of the pupils. However, the modern junior high school, seeking to adapt its program to the needs of its constituency, has set up standards of admission which further accentuate individual differences among its pupils. In some schools all are admitted on the basis of social maturity without reference to previous accomplishment, and the practice promises to become more common. In other schools the requirements permit the admission of at least two groups of pupils in addition to those who satisfactorily complete the work of the sixth grade. The first of these groups includes over-age pupils who, for one reason or another, have not progressed at a rate rapid enough to enable them to complete satisfactorily the work of Grade VI. The curriculum of Grade VII typically affords experiences better suited to the needs of these over-age pupils (and often near-drop-outs) than can be found in the single fixed curriculum characteristic of Grade VI. These over-age pupils are, therefore, promoted to the junior high school. A second type is the accelerated pupil, who, for one reason or another, has not as yet completed the work of Grade VI but who is able successfully to carry the work of Grade VII. For the first group, the over-age, Van Wagenen [1] has suggested that any pupil who has reached the chronological age of twelve years six months be sent on to the junior high school at the first regular promotion day after he has reached the mental age of twelve years, provided he has attained at least fifth-grade achievement. Such a pupil, if not promoted, will be out of place in the elementary school. Again, any pupil who has reached the age of twelve years six months but whose mental age will reach thirteen years before the next promotion date would be admitted into the junior high school, even though he fails to attain fifth-grade standards.

The admission requirements of every secondary school should be based upon a well-formulated policy of pupil promotion which, in turn, is in accord with sound educational thought. There is a growing sentiment favorable to the policy of making pupil progress regular and continuous by refusing to deny to any pupil the opportunities of attending school in an environment made up of other children of his own age, interests, and maturity because of his inability in the elementary school to achieve certain standards. The nearer this policy is realized by practice in any given school, the greater will become the heterogeneity of a given grade classification. In the junior high school of good size the deficient pupil, if he must be so designated, can be placed with a group of about his own chronological and mental age and of a similar level of achievement. Other pupils may be classified with logically selected classmates in a similar way. That administrative adjustments are needed may be inferred from data concerning the pupils of Grade VII in almost any junior high school. Data concerning the 140 pupils in Grade VII of one junior high school disclosed the following ranges:

(1) In chronological age, the range was from 10 years 6 months to 14 years 11 months.

(2) In mental age, the range was from 11 years 3 months to 15 years 11 months. Approximately 5 per cent of the pupils were outside a range of 4 years.

(3) In intelligence, as measured by the intelligence quotient, the range was from 77 to 142.

(4) In achievement, the range of variation extended well over three grades. Approximately 4 per cent of the pupils were but halfway through Grade V in general achievement, while approximately

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[1] M. J. Van Wagenen, *Educational Diagnosis and the Measurement of School Achievement*, p. 178. The Macmillan Company, 1926.

> 11 per cent were more than halfway through Grade VIII in this respect.

In addition, there was, doubtless, great variation in the interests, in physical and mental health, and in other characteristics.

With such variations Grade VII of almost any junior high school not only offers an outstanding opportunity for administrative adjustments for the recognition of individual differences, but it has brought together a group so diverse as to make such adjustment imperative. The pupils in any of the other years of the school have similar variations in kind and magnitude. With such quantitative differences present in classes brought together in any school, it is almost undebatable that teaching conditions, in order to make for maximum effectiveness, demand special administrative provisions which will adequately take into account the wide ranges in variation found.

Variations among the abilities of an individual must also be anticipated. The administrative provisions must give some recognition to the fact that a given individual will manifest wide variation among his own abilities. The distribution of abilities possessed by a given individual may be expected to follow the same law as will the distribution of individuals on a given trait. Hull,[1] after testing 107 pupils in Grade IX with 35 different measures of ability, estimated that the average individual's best potentiality will usually be between 2½ and 3 times his worst. If Hull's estimate is anywhere near correct, what abilities and interests are selected as a basis for deciding what educational experiences are to be made available within a school becomes a consideration of paramount importance to the individual pupil.

Provisions must take into account the school-to-school variations. The variations among the pupils in a single grade of one school will not serve as a safe criterion for deciding what differences exist among the pupils in the same grade of another school. The character of variation within grades differs too much from school to school to justify drawing general inferences from one set of evidence. This holds true even when the schools are within the same system. In larger systems, differences are so pronounced as to necessitate sectional administrative adjustment. Keener,[2] in 1925, gave an interesting picture of the entering pupils of Grade IX in 26 Chicago high schools. The median chronological age of the pupils in one school was 16 years, while in another it was

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[1] Clark L. Hull, *Aptitude Testing*, pp. 45–49. World Book Company, 1928.

[2] E. E. Keener, "Mental Ability of Freshman High-School Pupils," *Journal of Educational Research*, XI (February, 1925), 113–122.

14. The relative position of the two schools as determined by mental age was reversed, the 16-year-old group averaging only 14 years 3 months in mental age, while the 14-year-old group averaged 14 years 10 months.

School-to-school variations exist also in parental attitudes and in the educational conceptions of the staff. All these factors, if taken into account, obviously will not lead to identical administrative features for different schools, even if they are in the same city system. The most sensible thing to do, it seems, is to plan the program in terms of data and information secured within the school in which the program is expected to operate.

FACTORS CONDITIONING THE CHARACTER OF VARIATION

Change in the character of the pupil population. Since the origin of the public high school, the American secondary-school population has been gradually and almost imperceptibly changing from a socially and economically superior group to one more representative of all strata of human life. The proportion of pupils of high-school age who enroll in school has become increasingly greater with each succeeding generation, with a consequent effect on the character of the pupil population.

The change in the character of the population has been variously expressed. The expanding range of variation from 1912 to 1930 in the traditional four-year high school is given in the National Survey of Secondary Education [1] by contrasting the increase in enrollments of grades IX, X, XI, and XII with the increase of enrollment in Grade VII. Data in Table 26 are arranged from the evidence reported in the Survey. Judging from these data, the junior-high-school grades VII, VIII, and IX can be considered grades in which universal education has largely been achieved. The end of the upward movement, however, has evidently not yet been reached, since during the biennium 1930–32 the increase in the number of pupils attending city high schools was almost twice that in any preceding biennium.[2] It has been estimated that the high-school population will reach its

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[1] Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*, p. 4. National Survey of Secondary Education, Monograph No. 13. United States Office of Education, Bulletin No. 17, 1932.

[2] Carl A. Jessen and Lula M. Comstock, *Statistics of High Schools in Large Cities*, p. 11. United States Office of Education, Pamphlet No. 53, 1934.

TABLE 26

MULTIPLICATION OF ENROLLMENT IN VARIOUS GRADES BETWEEN 1912 AND 1930 AND THE PERCENTAGES THAT THE ENROLLMENT OF THE VARIOUS HIGH-SCHOOL GRADES WERE OF THE ENROLLMENT IN GRADE VII

GRADE	TIMES ENROLLMENT MULTIPLIED BETWEEN 1912 AND 1930	PER CENT OF GRADE VII, 1912	PER CENT OF GRADE VII, 1930
VII	1.5	100	100
IX	3.2	38	80
X	4.0	23	55
XI	4.5	15	45
XII	3.5	15	35

peak by 1941 or 1942.[1] There is evidence also of variation in the degree of popularization from state to state and from community to community.[2] Rural communities where opportunities for high-school education are not available are sometimes below the average, while some cities are found to have an enrollment in excess of 90 per cent of the population of appropriate ages.

Socio-economic democratization. The character of variations among the pupil population is dependent not merely on numbers enrolled; it is conditioned also by the extent to which children of different socio-economic groups are represented. The adjustments made within the school to give training appropriate to all types of pupils is a further reflection of the attitude of the school toward a more complete democratization. Since adjustments can more appropriately be made in terms of knowledge of the socio-economic status of pupils, information on this point can be of service in planning the program for individual differences.[3]

Intellectual democratization. Measures of the degree to which all ranges of intelligence are represented in proportion to their numbers in the general population and the adjustments made to varying abilities would supply evidence of democratization in another important respect. The picture within any given school is affected by many factors, among which may be listed the type of school, the educational ideals of the

[1] Homer P. Rainey, "What Is the American Youth Problem?" *Annals of the American Academy of Political and Social Science*, CXCIV (November, 1937), 19.

[2] Grayson N. Kefauver and James Rusk, "Variation in Popularization of Secondary Education," *School Review*, XLIII (February, 1935), 112–118.

[3] For general information on socio-economic status of the secondary-school population see Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *The Secondary-School Population*, pp. 8–16. National Survey of Secondary Education, Monograph No. 4. United States Office of Education, Bulletin No. 17, 1932.

community, and the policy of administration. The effect of type of school on intelligence is suggested in the data of Table 27, although medians alone can do little more than hint at the full influence and the numbers of pupils and schools included in the study from which the table is drawn are not large enough to assure complete representativeness.

TABLE 27

MEDIAN INTELLIGENCE QUOTIENTS OF PUPILS IN DIFFERENT TYPES OF SCHOOLS[1]

GRADE	MEDIAN BY TYPE OF SCHOOL					
	Comprehensive	General	Technical	Commercial	All Types except Trade	Trade
IX	97	103	—	98	99	91
X	100	105	106	99	101	—
XI	102	105	109	101	103	—
XII	103	107	109	105	105	—

According to the National Survey of Secondary Education, if all kinds of schools are included, the pupils in high schools are nearly a representative cross section of the total population, differences in intelligence quotients being explained by differences in types of schools or by differences in lines of work being pursued. The median intelligence quotient of 9120 pupils surveyed was 102, and that of 954 pupils in trade schools was 91. Another study[2] for a particular city where only pupils in grades X, XI, and XII were investigated showed the average intelligence quotients of pupils to vary with the lines of work pursued. Pupils in the college-preparatory, general, commercial, and trade-preparatory curriculums had average intelligence quotients of 111, 97, 99, and 93, respectively. In this particular study the median intelligence quotient of all pupils represented was 102.

Thus the character of variations is affected not only by the degree of intellectual popularization achieved by the school but also by the policy of the school toward establishing different lines of work for differing levels of ability.

Ethnic background and democratization. The degree of popularization and, therefore, the need for differentiation may in some communities be affected by the ethnic backgrounds of the population.

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[1] Kefauver, Noll, and Drake, *op. cit.*, p. 21. The data were taken from Table 2.

[2] Richard E. Rutledge and Allen Fowler, "The Changing Senior High School Population and the Curriculum Problem," *School Review*, XL (February, 1932), 109–114.

Children of certain foreign groups are known to vary in the proportions in which they continue into the higher secondary-school levels; and these proportions differ from the proportions in which children of native-born whites continue to these levels. Also, Negro children are known to attend in smaller proportions than children of native white parents. Drawing on evidence in the report of the Immigration Commission made more than a quarter century ago, Koos found, for example, that the percentages of pupils enrolled in public high schools were 10.6 for children of Canadian (other than French) fathers and 10.0 for children of Scotch fathers, whereas the percentages for South Italians and Portuguese were, respectively, 0.8 and 0.5. The percentages for children of native-born white and Negro fathers were, respectively, 9.5 and 4.3.[1] The increased popularization of secondary education in the intervening years has unquestionably brought into the school larger proportions of children of the ethnic groups which were not formerly so largely represented in the enrollment. The school has thereby been faced with an accentuated problem of differentiation in terms of interests and needs. It is hardly conceivable that the forces of assimilation have, even during a long period of slackened immigration, operated to eliminate entirely the differences involved.

The democratic school and the program for individual differences. In the democratic school, education proceeds with due regard to human nature, individual needs, and human values. The major problem in democratizing the school today seems to be one of giving proper recognition to these considerations. The facts of individual differentiation are to some extent established. What use to make of these facts, what differentiation of education they should lead to is not fully agreed upon; but almost everyone concedes that the existence of varying individual capacities and interests has too long been ignored in our educational procedures. Every school of thought recognizes the basic importance of individual differences, both native and acquired. Everyone has respect for their significance; all have concern for individuality; all desire that the educational arrangements give due consideration to each pupil with his own peculiar limitations and possibilities. Adjustments are deemed necessary, but, as in most things, all do not see alike. A consideration of all types of adjustments would call for a discussion too extensive to be given here. Some of the administrative plans, the descriptions of which follow, are designed—in a measure, at least—to further the needed adaptations. The administrator, as a first step, can study, with the co-operation of the staff, the nature and extent of individual differences within the school of which he is head and within each grade of the school. He can find the degree of social and intellectual popularization attained by the school. He can go as far as may be in educating the teachers with regard to the actual status in these matters within the school, and thereby develop understanding and provide the basis for making satisfactory provisions.

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[1] Leonard V. Koos, *The American Secondary School*, p. 137. Ginn and Company, 1927.

As a second step, both principal and staff will wish to study the more promising procedures and techniques which are in successful use in schools. Some of these can be adopted or adapted to conditions found in any grade of the individual school. The procedures discussed in the following pages are presented for the purposes of giving an overview of the various provisions, of offering some evaluation of them, and of emphasizing a few elements in administering them which experience has shown to be deserving of special consideration.

ABILITY GROUPING

Meaning of ability grouping. One of the most commonly used procedures to provide for individual differences among pupils within a grade—and one which, because of its rather complex and controversial character, requires more extended treatment than others—is the classification of pupils in their curriculum activities on the basis of one or a number of factors. When the classification is made on the basis of the ability of the pupils to do the work of a subject-matter course, the pupils are said, for purposes of this discussion, to be classified into ability groups. There are other ways in which present classifications may be refined,[1] but the meaning of *ability grouping* is taken to be a procedure with a definitive connotation.

Strictures on ability grouping. The chief criticism most commonly offered against ability grouping, as herein defined, is that it is not consistent with the democratic ideal. This ideal is that the concern for individuality in the school should be so thoroughgoing that the educational arrangements will give individual consideration to each child. Democracy, it is held, implies a recognition of the uniqueness of the individual to a much greater degree than that implied by the definition of ability grouping. Thus the controversy over the relative merit of this administrative device goes back to the question of ethical values, the most fundamental of which may be said to be the freedom and the capacity of the individual continually to reconstruct his experience so that he gains added control over his subsequent experiences. To make this reconstruction possible, the moral autonomy of each individual becomes a basic value. Ability grouping, it is contended, may interfere because of the fixity of classification and of the prearranged nature of the subject matter to be followed. That there is a point in this criticism, as well as in certain others not included here, there can be no doubt. One source of criticism expresses it as follows:

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[1] E. C. Cline, "Differentiating Secondary Education," *School Review*, XLII (June, 1934), 431–439.

> The fact that ability grouping has met with apparent success is due largely to the fact that the school has been willing to neglect genuine social values, and to strive for uniformity of achievement in so-called "fundamental" skills and information. Hence a school that regards the education of the whole child as important and demands that its program be an exemplification of democracy at its best . . . cannot be satisfied to base its program on any such mechanical device as ability grouping.[1]

Despite inadequacies, most persons admit that there are some educational situations in which ability grouping may be so administered as to serve a useful purpose, providing such use is made of it as is educationally legitimate. The number of such situations probably has its limits. The criticisms should not be lightly viewed but should serve as a warning to those who administer the program. Wherever ability grouping is practiced, it should be employed with a studied realization of the weaknesses inherent in the plan. Ability grouping has served useful purposes and may continue so to serve. Its use, however, should not be of a nature to impede the progress of new and more effective techniques which may be more consistent with a developing concept of a dynamic social education.

A variety of bases of grouping are available. The procedure of improving on classification by ability grouping is a frequent administrative practice, but the techniques used vary considerably from school to school. The variation is probably due to the existence of a number of bases and combinations of bases on which pupils may be grouped. The National Survey of Secondary Education [2] found 16 different bases of grouping (in addition to chronological age) used in 289 schools which were reported to be practicing ability grouping with, in the opinion of the principals, "unusual success." In only 18 per cent of these schools was a single basis of grouping used,[1] which means that in more than four fifths of the schools some combination of two or more bases was used. Few, if any, combinations were found to be recurrent. Probably one cannot say that there is a best basis of grouping by ability. The principle which guides the process, however, is common to all schools, and any method employed should be based on this common principle.

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[1] H. B. Alberty and O. G. Brim, "The Relation of the Newer Educational Practices to Grouping," *The Grouping of Pupils*, pp. 130–131. Thirty-fifth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1936. Quoted by permission of the Society.

[2] Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*, p. 96. National Survey of Secondary Education, Monograph No. 13. United States Office of Education, Bulletin No. 17, 1932.

Principle underlying ability grouping. Classification by ability is based on the simple theory that learning of certain kinds can proceed more effectively when variations in learning abilities of a group are reduced, in range, to limits defined by practicability. However, pupils may differ in so many ways that to reduce the variation in one direction may actually operate to cause increased variation in some other direction. It is manifestly out of the question to succeed in reducing the range of variability within all traits at one and the same time. Consequently, in grouping, the administrator seeks to reduce variations in such directions as will result in improved teaching conditions. It is commonly thought that the teaching conditions will be improved when the variability within a group with respect to some one or two traits basically related to learning what is to be learned is reduced without at the same time materially increasing the variability of the group with respect to some of the other basic traits. *Homogeneity* thus is only a relative term. One can only seek to approximate the optimum conditions for teaching. It has, therefore, become an accepted principle of classification that *ideal conditions best suited to effective mass teaching are realized to the extent to which the heterogeneity of a group can be decreased with respect to any single dominant learning capacity without at the same time increasing in any questionable amount the heterogeneity of the group with respect to any other important single learning capacity.*

Since there are a number of dominant traits in which it is possible to reduce variability, it is obvious from a consideration of this principle that there can be a number of methods of classification, each of which will serve to make more suitable the teaching situation. Possibly the method to be used will depend somewhat on local conditions—the data available, purposes to be met, or restrictions imposed by agencies within or without the school. The application of the principle, however, is both feasible and practicable in any school where grouping is desired and where the numbers taught as single-grade groups are large enough to permit refinement of the classifications by some method of sectioning.

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[1] *Ibid.*, p. 100.

Two kinds of ability grouping. Grouping by ability may be of two kinds: grouping *within* class sections and grouping *into* class sections. A quotation from the National Survey of Secondary Education illustrates well the distinction between the two. In speaking of grouping within class sections, the report of the Survey says:

> Good teachers have employed it more or less informally for a long time. Under the procedure, the pupils of a heterogeneous class are divided by the teacher into two or more groups for instructional purposes, and the class period is given partly to individual work, partly to work with small groups, and partly to class discussion.[1]

Persons interested in a discussion of the advantages of this procedure should read Billett's *The Administration and Supervision of Homogeneous Grouping.*[2]

In contradistinction, grouping into class sections means forming class sections which meet in different rooms under different teachers, or under the same teacher at different periods of the school day.

When grouping is desirable. Ability grouping is regarded as desirable when large numbers of pupils are, for one reason or another, engaged in certain types of common activities, such as that of acquiring knowledges in specialized subject-matter fields, and when a reduction of the range of variation within the group will permit various adjustments to facilitate learning. Groups engaged in specialized activities of various types are to be found not only in the typical school in which instruction is organized on the subject-matter basis but sometimes also in schools labeled "progressive." Thus even among the theorists who deem it feasible to abandon teaching along subject-matter lines or not to work toward fixed goals it appears that there will be found situations in which learning is facilitated by reducing the range of variation. Hence it seems that ability grouping may legitimately be exploited at the secondary-school level as a device for recognizing variations in the abilities, interests, and needs of pupils. However, it cannot be too strongly emphasized that when the use of ability grouping is found to be desirable, great care should be taken to see that the groups are formed in an educationally acceptable manner and that discriminating use is made of the device by teachers and pupils. The method in which the groups may be formed and the manner in which classification into levels is to be avoided are important. These matters are dealt with subsequently, but it is desirable at this point to anticipate the consequences of failure to meet these problems satisfactorily. If ability grouping is to be employed, it should be so administered as to meet every legitimate criticism directed against it. If it cannot do so, then it should not be employed.

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[1] Billett, *op. cit.*, p. 42.

[2] Roy O. Billett, *The Administration and Supervision of Homogeneous Grouping*, pp. 14–15. Ohio State University Studies, Contributions in School Administration, No. 4. Columbus, Ohio: Ohio State University Press, 1932.

The feasibility of grouping into sections. The Report of the National Survey of Secondary Education suggests that the feasibility of grouping into sections is related to the size of the school. The character of this relationship is shown in figures 17 and 18, which are reproduced from the report of the Survey.

> The figures suggest that homogeneous grouping is achieved with relative ease in schools enrolling more than 1000 pupils. When the total enrollment drops to fewer than 1000 there is a sharp decline in the facility with which success is being achieved. This decline continues at a greatly lessened pace until total enrollments of 250 or fewer are reached. Here the decrease becomes more abrupt, . . . indicating less and less ease with which success may be realized.[1]

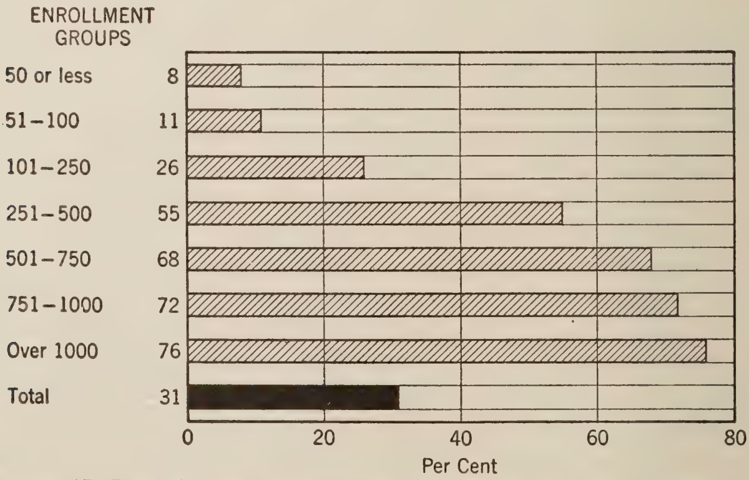

FIGURE 17. Use of Homogeneous Grouping in Schools at Different Total Enrollments [2]

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[1] Roy O. Billett, *op. cit.*, pp. 44–45.

[2] *Ibid.*, p. 44.

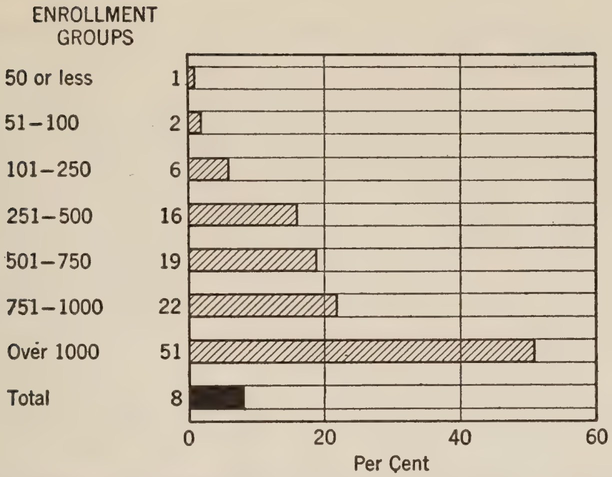

FIGURE 18. Use of Homogeneous Grouping with Estimated Unusual Success in Schools of Different Total Enrollments[1]

In no case is sectioning impracticable if two sections of a single subject happen to recite at the same class period. It is only slightly less feasible if two sections of the same subject must be assigned to two different periods of the day.

The feasibility of grouping is greater in the lower grades of the secondary school than in the upper grades, partly because of the larger enrollment in the lower grades and partly because of the greater proportion of required subjects in the lower grades. The constants of the curriculum afford greater ease of sectioning than do the electives, mainly because of the presence of more pupils. However, the commercial arts and the industrial arts seldom are taught in homogeneous sections, possibly because instruction in these fields may be in considerable part individualized without it. Judging from practice, grouping is also more feasible in schools organized into junior-high-school and senior-high-school divisions than in schools conventionally organized. The following finding is apropos with regard to the status of grouping in different kinds of schools:

> Of all types, schools including grades VII to IX report most use of homogeneous grouping. . . . This is a marked lead over the nearest other type, namely, schools including grades X to XII. In these latter schools slightly more than half report the use of homogeneous grouping. Other types in the order of the extent to which they employ homogeneous grouping are: grades

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[1] Roy O. Billett, *op. cit.*, p. 45.

VII–XII, the miscellaneous "all others" group, grades VIII–XI, grades VI–XI, and grades IX–XII.[1]

Three kinds of bases for classification distinguished. The staff of a school must first decide, of course, whether sectioning as a plan of recognizing individual differences is practicable and feasible in their institution. If it decides against ability grouping, then other provisions—possibly some of those discussed later in this chapter—may best solve the problem. If conditions seem to be propitious for sectioning, then the staff will need to select carefully the method of grouping which is best suited to the local situation. The decision will depend on an intelligent understanding of all related factors. To understand how pupils may be classified, we may first note the plans by which pupils have been classified and then study each of these plans with a view to finding its advantages and its limitations.

Three kinds of bases will be taken up for discussion: single basis, multiple basis, and composite basis.

SINGLE BASES OF GROUPING

Selecting a plan. As already reported, schools using a single basis of grouping seem to be decidedly in the minority. If a single measure is to be used, there will be available a number of plans for sectioning pupils, from among which the principal will need to make a selection. This selection may be made by weighing each plan in the light of its advantages and limitations and selecting the one which, in general, seems to have greatest merit. Or conditions may enter to urge favoring the plan which gives promise of working out best under the local situation, although it may not be the plan of greatest merit.

Predicted achievement as a single basis. A principle for pupil placement for academic instruction proposed by Gates is as follows:

> It is now considered not enough to group together children who are scholastically alike at the moment; those should be put together who will advance similarly.[2]

Pupils of similar achievement in a subject might, for the moment, constitute a homogeneous group to do further work in that subject; but they differ markedly in learning rates, and thus remain a homogeneous group for only a short time. It is therefore better to identify those who are likely to advance at equal rates. Such tests, if available, would select from a group of pupils those who can be expected to do well or poorly in the subject. This would enable the staff to discover and to place together *pupils who will, within limits, be alike in achievement at the end of a period of learning as well as at the beginning.* Prognostic tests are available in some, but not in many, subjects. The practical school administrator will hesitate to use a scheme for which the instruments of measurement are largely unavailable.

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[1] *Ibid.*, p. 47.

[2] Arthur I. Gates, "The Nature and Educational Significance of Physical Status and of Mental, Physiological, Social, and Emotional Maturity," *Journal of Educational Psychology*, XV (September, 1924), 354.

Gates's suggestion has, however, more than a merely theoretical bearing. It shows somewhat emphatically the need for flexibility in any scheme of classification which may be in use. If the means are not available whereby future success in a subject may be predicted, then, when pupils are sectioned, all groupings should be considered temporary only and transfer should be made relatively easy.

Past achievement as a basis. Past achievement, as a means of sectioning, rests on the theory that what pupils have accomplished in the past in a given field is a fair criterion for judging what they will accomplish in the future in that field.

(1) *Marks as a predictive measure.*—One measure of past achievement, convenient to use, is found in school marks. The marks received in one unit of the school system correlate well with later school success of the same individuals in other units. The correlation between elementary-school marks and high-school marks has been found by investigators to range from .49 to .789 and to average slightly over .50. In schools where marks are assigned in terms of relative scholastic achievement, a substantial reduction in the range of variations in ability among pupils to achieve can be accomplished through sectioning on this basis.

(2) *Achievement tests as predictive measures.*—A second measurement of past academic success is afforded by the standardized achievement tests. Reference has already been made to the theory that the best indication of what a pupil will do in a subject is revealed through some reliable measure of what he has already done. To predict what a pupil will do in algebra, find first what he has already achieved in arithmetic, as measured by a standard test in arithmetic. This sounds logical, but studies do not bear out the statement. Seemingly, high-school subjects, as taught, do not demand the high degree of specialization of ability one might be led to expect. Correlations between scores on achievement tests in a subject and marks received in high school in that sub-

ject have often been no higher than correlations between scores in achievement tests in specific subjects and marks made in subjects other than those represented by the tests. This would be indicated by studies like the one by Allen,[1] in which it was found that a battery of tests designed to predict ability in Latin was equally valuable in predicting ability in English and in mathematics.

Possibly a statement by Kaulfers, made after a scrutiny of 612 correlations reported over a period of 30 years by 46 investigators in the field of foreign language, might be used to illustrate the status of achievement testing for predictive purposes. He says:

> Because of the unstandardized conditions prevailing in foreign-language teaching and the complex nature of the abilities involved in foreign-language work, no basis of prediction will probably ever prove universally applicable or definitely and constantly superior to all others. This conclusion implies that the attainment of a prediction for foreign-language achievement which will hold for all courses and all languages and which will prove more valid than the predictions now yielded for other subjects by tests of intelligence or industry traits is a practical impossibility.[2]

If the same measures that predict general success can be used equally well to predict success in special academic subjects, the use of achievement tests seems less desirable for sectioning in these subjects than do the general measures, such as marks or intelligence-test scores. This conclusion does not apply to subjects calling for abilities of a type involving specific skills, such as are represented in music, art, industrial arts, and the like.

Intelligence ratings as a basis. The purpose of classifying pupils on the basis of general ability is to delimit within a group the range of capacity for progress. However, it must be remembered that capacity to do is not a complete measure of what pupils will accomplish. Educational progress is also conditioned by factors like character and emotion. If a large number of children are sectioned into groups on the basis of ability, it will be found that some pupils in the lowest fourth of the gifted class will make less progress in school than will some pupils in the highest fourth of the average class. Similarly, some pupils in the highest fourth of a slow group will excel in achievement some of those in the lowest fourth of an average group.

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[1] W. S. Allen, *A Study in Latin Prognosis.* Teachers College, Contributions to Education, No. 135. New York: Teachers College, Columbia University, 1923.

[2] Walter Vincent Kaulfers, "Present Status of Prognosis in Foreign Language," *School Review*, XXXIX (October, 1931), 592.

Studies by Proctor,[1] Fleming,[2] and A. M. Jordan [3] show the correlation between high-school marks and scores on intelligence tests to be, respectively, .554, from .33 to .58 in different subjects, and from .45 to .49. Apparently the correlation between the two can be safely assumed to be in the neighborhood of .50. This is approximately the same as that found to exist between elementary-school and high-school marks. Group-intelligence tests are easily given and easily scored. Sectioning on the basis of general ability, it is argued, has the advantage that it places the pupil in the highest section with which he is capable of progressing, whereas classification on the basis of marks or achievement may place the pupil in the section which is suited more to his habitual rate of progress. It may be that his habitual rate is slower than is justified by his ability. Grouping by ability will, so it is contended by those who favor it, at least give him a chance to keep up with the group with which by nature he is best suited to be classed. As expressed by Miller, "*It makes possible an adaptation of the technique of instruction to the needs of the group.*" [4] "*Classification may make competition operative as an incentive.*" [5]

Physical development as a basis. Although no one would recommend that pupils pursuing academic courses be classified wholly on the basis of physical development, physical traits have received considerable discussion within the last decade as important factors to be taken into account in grouping, even in academic work. Some have expressed the belief that there is a close relation between physiological growth and mental maturation. The basis of this belief, well expressed by Naccarati and Lewy-Guinzburg, lies in the contention that "the same hormones which promote the morphogenesis of the skeleton and muscles of the limbs promote also the development of the psychomotor and psychosensory centers." [6]

After careful study of the relationship, Freeman and Carter came to the following conclusion:

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[1] William Martin Proctor, *Educational and Vocational Guidance*, p. 42. New York: Houghton Mifflin Company, 1925.

[2] Cecile W. Fleming, *A Detailed Analysis of Achievement in the High School*, p. 68. Teachers College, Contributions to Education, No. 196. New York: Teachers College, Columbia University, 1925.

[3] A. M. Jordan, *Educational Psychology*, p. 363, Table XL. New York: Henry Holt and Company, Inc., 1928.

[4] W. S. Miller, "The Administrative Use of Intelligence Tests in the High School," *Intelligence Tests and Their Use*, p. 205. Twenty-first Yearbook of the National Society for the Study of Education, 1922.

[5] *Ibid.*, p. 209.

[6] Sante Naccarati and R. L. Lewy-Guinzburg, "Hormones and Intelligence," *Journal of Applied Psychology*, VI (September, 1922), 221.

> Our data show that the child's capacity to do advanced intellectual work cannot be measured by his rate of anatomical development. The child's variation in mental development must be measured by mental tests, and it cannot be inferred from the results of physical tests. Classification should be based primarily on measures of intellectual growth and capacity, and only secondarily, if at all, upon measures of physical growth and capacity.[1]

After carrying out a careful study on "the extent that measures of physical traits and of the several types of maturity may be practically useful in diagnosing the achievements of a pupil; in deciding upon the amount of work that may wisely be undertaken, and upon the degree to which these traits should be taken into account in classification and promotion,"[2] Gates found correlations by the partial-correlation method between educational achievement and physical measures to be very low—.01 for height and .07 for weight. His main finding was "that the physical status, based on a team of tests carefully done by experts, appears to exert a barely perceptible—and a practically unimportant—influence on achievement of the sort measured by scholastic tests."[3]

In the light of present findings it would be unwise to use physical measurements as a single basis for classifying pupils to do mental work. Other single measures, like some of those mentioned above, would yield a more nearly accurate placement. Physiological age might wisely be used in physical education, however, as a guide in planning the program, and physical measurements might aid in setting standards and in classifying the pupils.

Displacement of single measures. When pupils are sectioned on any single criterion, there will be considerable *displacement*, which may be briefly defined as the placing of pupils in wrong ability groups as judged by their performances in the group. Some displacement can be anticipated, since the best single measures correlate with future success as measured by school marks at about .50.

Taking the correlation between intelligence-test scores and marks to be .50, Freeman has expressed the degree of displacement when intelligence is used as the basis of sectioning as follows:

> Suppose, now, we were to use the intelligence test as a means of prediction and of classifying the students into sections. If four sections were formed, from

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[1] Frank N. Freeman and Thomas M. Carter, "A New Measure of the Development of the Carpal Bones and Its Relation to Physical and Mental Development," *Journal of Educational Psychology*, XV (May, 1924), 270.

[2] Gates, *op. cit.*, p. 331.

[3] Gates, *op. cit.*, p. 356.

31 per cent to 57 per cent of each group would be properly placed as judged by their marks, from 18 per cent to 38 per cent of each group would be in a section one removed from their proper place, from 6 per cent to 16 per cent would be in sections two removed, and from 2 per cent to 8 per cent would be in sections three removed from the correct.[1]

The desirable number of ability levels. Logically, it might seem that the number of sections should be limited only by the number of pupils; that is, the more sections into which the pupils of Grade VII in a school can be divided, the better. There are several reasons, however, for believing such an assumption to be invalid. For one thing, the accuracy of placement is not high enough to justify so many groups. In other words, the instruments of classification are defective. A second reason lies in the inability of the staff of a school to adapt materials and methods to such refined gradations. A third is the obstacles in the school to transferring pupils from section to section, which would be necessary in a system possessing the desired flexibility. A fourth reason is that in many schools electives will so distribute pupils that in many subjects there can be but two or three sections. Consequently, the provision for many sections in one subject and for few or none in another leads to administrative confusion.

One way of decreasing the proportion of displacement is to reduce the number of sections. With two or three sections only, the percentage of displacement is considerably reduced. Even with two or three sections, however, some inaccuracy in pupil placement is to be expected, which may be owing to the inaccuracy of the tests used or, again, to the inequalities in progress made by the pupils, since pupils who are homogeneously grouped may become a widely variable group after a period of instruction. Because of inaccuracy of placement when a single measure is used, the *original grouping should be considered as a trial grouping, the assignment of a pupil being changed whenever it becomes evident that he is misplaced.*

More bases may increase accuracy. A second way of increasing the accuracy of sectioning is to use more than one measure as a basis. Two distinct methods of classifying pupils with two or more criteria are distinguishable. In one method one or two bases are employed as a check against a first or single basis. This method is treated below under the caption "Multiple Bases." Another method also uses a number of criteria but combines the different measures into some form of mathematical composite. This method is treated later under the caption "Composite Bases of Grouping." (See page 263.)

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[1] Frank N. Freeman, *Mental Tests: Their History, Principles, and Applications,* pp. 375, 377. Houghton Mifflin Company, 1926.

MULTIPLE BASES OF GROUPING

Reason for using multiple bases. It has been shown that the use of a single basis for grouping results in considerable error of placement. The use of a multiple basis may help to reduce this error, but the principal justification does not lie in this fact. The principal reason for employing two bases is to help *find the discrepant cases which call for individual attention.* If by two measures, both equally accurate, a pupil is placed in the highest fourth of the group for all practical purposes, there is little need to be further concerned about the accuracy of his placement. In case each measure places him in a different fourth, however, more detailed attention to the case is needed. In such a case a third measure becomes necessary, to help decide which fourth would be best for a trial assignment. Thus there is need for a minimum of three bases, the first of which serves as the basic criterion, the second as a check to discover discrepant cases, and the third to render judgment as to the section in which a discrepant case shall first receive trial assignment.

What criteria to use. The fundamental criterion for sectioning pupils by this method is the ability of an individual to do his schoolwork. Past record, expressed in school marks, and intelligence, expressed in terms of intelligence quotients, are fairly reliable criteria for judging a pupil's ability to do usual types of schoolwork. Marks and intelligence quotients might be the first two single bases to use for discovering the discrepant cases, although it is possible that two other measures might serve equally well.

In using two measures in combination, pupils who are to be classified in any subject or grade may first be ranked in the order of accomplishment, say, as shown by past school marks—let us say the marks made in the five elementary-school core subjects, namely, reading, geography, history, arithmetic, and spelling—in grades IV, V, and VI. In case percentages constitute the symbols for marks, these may be averaged for all subjects for the two or three years selected. If symbols are in the forms of letters, some numerical interpretation will need to be made before averaging; for example, A may be assumed to equal 5, B to equal 4, and so on, or any other arbitrary numerical value may be assigned. The same pupils are similarly ranked on the basis of intelligence-test scores, mental ages, or intelligence quotients, according to preference.

The pupils ranked on the basis of past record are then divided into thirds, or into whatever number and size of sections seem most desirable. The pupils are again ranked on the basis of intelligence and similarly divided.

All pupils who fall in the same section by both methods of ranking may be considered properly placed for the trial grouping. Disagreement between the two methods in the placement of any pupil will reveal the discrepant cases which need more detailed study. For these pupils, teachers' judgments may be used to decide the placement, in which case characteristics not measurable by tests may become significant factors in the decision. School attitude, habits of work, emotional attributes, physical handicaps, health habits, and home conditions may all be subjectively considered and a composite judgment as to the proper assignment rendered. Many principals prefer to list the items for judgment on a rating card which has the numbers 1, 2, 3, 4, and 5 following each item. The teacher can render judgment on each item by simply encircling or checking the appropriate number. Such study of the pupil may do more than merely decide his placement; it may at the same time focus attention on the pupil and make him the object of individual study and of increased teacher responsibility for observing him—a condition which often results in better ultimate adjustment.

COMPOSITE BASES OF GROUPING

The principle underlying use of composite bases. The accuracy of relative rankings of pupils, it is believed, would be increased if the final ranking were derived from a series of rankings. In order to simplify the derivation of such a final ranking, the results of the series of measures used may be combined into a composite score. Such a score cannot be made up merely by taking the sum of the various test scores. For more accurate results, statistical methods must be employed.[1] The principle underlying the use of all such methods is the reduction of all raw scores to scores on the same scale. For instance, arbitrary weights might be assigned each component. The measures for each pupil can then be expressed in terms of standard deviations. Next, the pupil's composite score can be computed simply by adding the standard deviations of his measures. Thus all measures are reduced to scores on the same scale.

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[1] See Charles Russell, *Classroom Tests*, Chap. XIV. Ginn and Company, 1926.

Arthur S. Otis, *Statistical Method in Educational Measurement*, Chap. XI. World Book Company, 1927.

Karl J. Holzinger, *Statistical Methods for Students in Education*, pp. 118–122. Ginn and Company, 1928.

Of the 289 schools reported in the National Survey of Secondary Education, only 64 made use of any numerical composite as a basis for grouping. In all these cases, an empirical percentage weight was assigned each basis. "It is a significant fact," says the report, "that not one school employs either a prediction formula or the standard deviation technique to secure a composite basis for refined classification." [1]

Criteria used. The criteria used and the extent to which each is used are shown in Table 28, which was taken from the National Survey. The favored criterion, judged by frequency of use, is the intelligence

TABLE 28

THE PERCENTAGE WEIGHT ASSIGNED EACH OF 17 BASES OF GROUPING IN 64 SCHOOLS REPORTING THE USE OF A NUMERICAL WEIGHTING SYSTEM TO SECURE A COMPOSITE GROUPING CRITERION [2]

BASIS	TOTAL TIMES USED	RANGE OF WEIGHT	MEDIAN WEIGHT
1	2	3	4
		Per cent	Per cent
1. Group intelligence-test score or mental age	20	5–60	33
2. Intelligence quotient from a group mental test	41	5–90	40
3. Average scholarship marks in all subjects combined	27	5–50	25
4. Average scholarship marks in this or related subjects	15	10–90	25
5. Educational-test or achievement-test age or score	15	10–50	25
6. Educational or achievement quotient	5	10–50	33
7. Teacher's rating of pupil's academic ability or intelligence	22	5–50	25
8. Average of several teachers' ratings of pupil's academic ability or intelligence	28	5–75	25
9. Individual intelligence-test score or mental age	3	5–15	5
10. Intelligence quotient from individual test	7	5–50	10
11. Health	7	5–15	5
12. Industry, application, or effort	17	5–40	15
13. Social maturity	8	5–15	10
14. Physical maturity	7	5–50	15
15. Type of home environment	2	5	5
16. Score from a prognostic test	0	0	0
17. Chronological age	1	40	40
Total	225		

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[1] Billett, *op. cit.*, p. 102.

[2] Roy O. Billett, *op. cit.*, p. 104, Table 24.

quotient from a group mental test. Other criteria ranking high in frequency are the averages of several teachers' ratings of pupils' academic ability or intelligence, average scholarship marks in all subjects combined, and "industry, application, or effort." Among criteria ranking low in frequency, as shown in the table, are educational or achievement quotient, individual intelligence-test score or mental age, health, social maturity, and type of home environment.

Classificatory tests as a basis. Classificatory tests seek to discover the pupil's ability to do schoolwork by a method which is easier of administration and is less time-consuming than the combination method described above. At the same time, this method is believed by many to give more accurate placement results than the other methods. The classificatory test is really a battery of tests designed to cover the previous preparation of the pupil in basal subjects. The test also may or may not be designed to afford a measure of intelligence in combination with the measures of educational achievement. Thus the final score yielded by the test is, in reality, a composite score, and this score can be used in lieu of a series of measures the results of which are to be combined into a single score.

Classificatory chart as a basis. Plans have been developed whereby certain objective data are used in charting pupils as individuals and then classifying them according to their position on a chart. The factors included for establishing the position of a pupil may be such as chronological age, mental age, intelligence quotient, and subject achievement. This method was developed and used by Van Wagenen in the St. Paul city schools, and it has been adequately described by him.[1]

Of the methods listed, the Van Wagenen diagnostic method probably comes nearest to embodying complete scientific diagnosis before classifying. Its chief limitation for grades above the seventh lies in the unavailability of achievement tests which afford mental-age norms and age-grade norms. Furthermore, the principal untrained in the methods of educational diagnosis will be unable to give proper treatment to the data. Possibly single and multiple methods constitute the simplest and, for the present, the most practicable means. The classificatory chart plan, as developed by Van Wagenen, Allen,[2] and others, brings the diagnostic function into prominence.

[1] M. J. Van Wagenen, *Educational Diagnosis and the Measurement of School Achievement*, chap. IX-XII, inclusive. The Macmillan Company, 1926.

[2] Richard D. Allen, *Organization and Supervision of Guidance in Public Education.* New York: Inor Publishing Company, Inc., 1934. See Appendix for complete description of use of classification chart.

ADMINISTRATIVE PROBLEMS IN GROUPING BY ABILITY

Assignment of pupils to groups. The function of deciding each pupil's classification level depends, first, on the policy of the school with respect to class size and, second, on the procedure selected. Educational theorists are generally agreed that slow sections should be small, with an increase in size for the more capable. This opinion is paralleled by practice. The report of the National Survey of Secondary Education[1] reveals the median number of pupils for slow, average, and accelerated sections to be, respectively, 26.7, 32.3, and 34.6.

The assignment of pupils to groups can be accomplished by a number of procedures. One method has previously been described in the discussion of multiple bases. The scores on the principal criterion are arranged in order of magnitude. The person doing the grouping merely counts off a class section from the lower end of the distribution and thus continues to the top. He repeats this with the second criterion. He then selects the discrepant cases and decides to which section each should be assigned by using some third criterion.

A second method disregards somewhat the number of pupils and decides what groups shall be formed by the range of scores. The range of scores may thus be divided into three equal parts, the range of each part being the same. It may then be assumed that pupils who fall in the lowest part will be assigned to a slow section, and so on with the rest. For example, suppose 80 pupils fall in this lowest group. These 80 may then be redivided into sections as the policy of the school, with respect to size of class, may decide.

By a third method, which has sufficient merit to warrant careful study, the range of distribution may be divided empirically. This range then becomes constant for each section. Thus a definite range is decided for the slowest group, and another range, possibly a much larger one, is decided for the accelerated group. If more than three sections are formed, the procedure would still be the same. The following, taken from the report of the National Survey,[2] shows how 270 pupils might be sectioned by this method:

> Range of class scores for Section 1, 68 to 93; for Section 2, 78 to 103; for 3 and 4, 88 to 113; for 4 and 5, 98 to 123; for 6 and 7, 108 to 133; for 9, 118 to 144.

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[1] Roy O. Billett, *op. cit.*, pp. 130–131.

[2] Billett, *op. cit.*, p. 132, Table XXXII.

It will be noted that the ranges definitely overlap, thus producing what many believe to be a desirable mixture of slow and average, or average and accelerated pupils. The variability of any group is thereby definitely limited to a reasonable range for the purpose for which the grouping is being done, without bringing into prominence the appearance of assigning pupils to artificial levels. In this way a principal objection to grouping is ingeniously avoided. By this method variations are merely reduced.

It is probably correct to say that by all odds the most common practice in assigning pupils to sections is "arbitrary"; that is, the assignment to groups is without consultation with pupils or their parents. The policy is accompanied by the practice of not announcing to pupil or parent the group to which the pupil is assigned. Only in individual instances, where it seems advisable from the standpoint of the best good of the pupil, do school authorities discuss with pupil and parent the question of grouping and take pains to identify for them the group to which the pupil has been assigned. To be sure, other policies and practices are followed, such as explaining the plan of grouping to parents in the community and providing distinctions in marks that indicate both the mark given to the individual pupil and the group to which he has been assigned. The practice at the extreme, of advising the pupil as to which group would be most appropriate for him and permitting him to decide whether or not he will enter it, is infrequently followed.

Modifying content for differentiated levels. The selection of materials to suit the needs and abilities of three or more groups of pupils belonging to the same class has confronted the school with a serious problem. Two main points of view are distinguishable in the many discussions of that problem. One point of view is that the adaptations made be qualitative in character: the course of study for the more gifted may be enriched by the introduction of materials greater in amount and in difficulty. Some object to this form of adaptation on the ground that it implies an impoverishment of the course of study for the less gifted. The objectors favor the taking of the brighter group through the curriculum more rapidly than the slower group.

Whatever the merits of the argument pro and con, the trend of practice is toward the development of carefully modified courses for the different homogeneous levels. This differentiation, according to the National Survey,[1] has advanced farther in grades VII, VIII, and IX than in grades X, XI, and XII, "there being three times as many modified courses in the former as in the latter." Courses were found to be modified more frequently in Grade IX than in any other single grade. English leads all other subjects in the number of differentiated courses throughout grades VII to XII. It is followed by mathematics and the social studies, with science throughout all the grades ranking as a distant fourth. Apparently, few attempts have been made as yet to differentiate courses in the other subject-matter fields.

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[1] Billett, *op. cit.*, p. 140.

Differentiating the teaching procedures. Differentiation of teaching procedure is a natural correlative to differentiation of content. It seems, however, to have advanced much farther than differentiation of courses, possibly because the obstacles confronted are neither so numerous nor so difficult to overcome. Teachers who differentiate procedure have favored some form of the unit assignment as most effective. The various plans and techniques employing the unit assignment are so numerous as to rule out the feasibility of discussion here. Many modern books on methods of teaching give them adequate treatment. Among the methods used are the Dalton plan, the project method, the activity method, the contract plan, the Winnetka plan, the laboratory plan, the group-study plan, the Morrison plan, the method of experimentalism, and so on.[1] The unit assignment seems to have justified its existence, as shown by the preference given it by theorists, teachers, and pupils. It lends itself equally well to remedial work and to the pace of the slowest or the fastest, and it seems to be one key to the effective teaching of differentiated courses.

Steps in introducing. In introducing grouping, it may be advisable at first to reduce the range of variation within any group by only a small amount. A range of intelligence quotients of from 78 to 156—not infrequently found in heterogeneous groups—might be reduced to 78 to 112, starting from the lowest measure. The ranges of other groups might likewise be limited to 34 points, at the same time being so fixed that they overlap to some extent. A sufficient mixture of the different levels would thereby be provided to avoid the evils of stratification and classification and still reduce the range of variation of each group. The principle underlying grouping by ability can in some way be recognized without attracting unusual attention.

This grouping might be followed with a concerted effort to employ some form of unit-assignment technique, and this step, in turn, should naturally lead to attempts to modify courses for the different groups.

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[1] An extended discussion of the various plans in use is given by Billett, *op. cit.*, Part II, pp. 227–392.

Allocating the responsibility. The function of determining policies in classification and of assigning pupils to various classification levels is of sufficient fundamental importance to call for a definite allocation of the responsibility. In small schools the classroom teacher may be the logical person to assume this responsibility, since the predominant practice in these schools is to group within class sections. The function must obviously be differently allocated in schools where grouping into class sections is the adopted policy. Among the 289 selected schools intensively studied in the National Survey of Secondary Education[1] a central agency for classification was the preferred method of discharging the function. A central committee, consisting of one or several persons, assumed the responsibility in 90 per cent of the schools of total enrollments in excess of 1000 pupils. The principal, in most instances, may feel that he should be a member of this central committee. Whoever the other members of the committee are, their qualifications will need to be in harmony with the technical demands of the tasks involved.

Authorizing transfers. Usually, requests for transfers from one group to another will come from a teacher who judges a pupil to be misplaced. Occasionally, difficulty in balancing class size or a pupil's wish to be transferred may be the reason for the request. The desire to have the pupil satisfactorily placed and adjusted will generally lead to special study of the individual and to further consideration of his problem. All such requests should be referred to the central agency responsible for forming the original groups, since relevant data are more available to these persons. They also have the advantage of experience derived from constant consideration of the basic factors involved.

EVALUATION OF ABILITY GROUPING

The evidence from controlled studies of grouping. A summary of the evidence from experimentation during the years 1925 to 1932 given by the National Survey of Secondary Education [2] showed that only eight controlled studies had been made. These were scattered over the various grades as follows: four studies in Grade VII, one in Grade VIII, three in Grade IX, and one each in grades X, XIII, and

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[1] *Billett, op. cit.*, p. 129.

[2] Billett, *op. cit.*, pp. 27–37.

XIV. The studies typically dealt with three levels of ability. The investigators used relatively simple bases for sectioning in all the studies, five of the eight using but a single basis. The duration of the experiments seldom exceeded a semester. A remark of one of the investigators on the nature of the tests may be used to summarize the status of the studies:

> In most of the investigations the batteries of tests used to measure results have been scant samplings of the educative changes which presumably have taken place in the experimental and control pupils during the period of the experiment.[1]

The difficulty of the problem of evaluation is also well expressed by the same author:

> Even casual reference to a few of the numerous variables not only renders absurd the expectation that the findings of any two of the summarized investigations should coincide, but also points clearly to the enormous labor entailed upon investigators before adequate evaluation of grouping can be made, giving due weight to the many factors which merit consideration.[2]

Values of controlled studies. The studies are of value to the administrator in two ways: they furnish him with a number of rather carefully weighed techniques and they suggest certain theories of grouping which may serve as a background for deciding issues that may arise.

Conclusions from surveys of the literature on grouping. Surveys of the literature on grouping bring to the fore almost every aspect of the problem. Two of the reviews, one by Rankin[3] and another by Turney,[4] are especially thorough and comprehensive. The conclusions of these two authors are much in agreement. They believe that the evidence slightly favors homogeneous grouping; that further efforts should be made to adapt standards, materials, and methods to the groups taught; that teachers prefer to teach relatively homogeneous groups rather than mixed groups; that the relative merits of various bases of grouping used are uncertain; that no judgment can as yet be formed as to the relative merits of the various attempts to adapt standards, materials, and methods to differentiated levels; that no conclusions are warrantable as to the particular grade levels or subjects in which homogeneous grouping is particularly effective; and that the evidence as to the effect of ability grouping on the characteristics of pupils other than knowledges and skills is highly subjective and inconclusive. Rankin believes that the evidence reveals greatest relative effectiveness for dull children and least for bright children, a belief suggesting a progressive decrease in the value of grouping from pupils of low ability to pupils of high ability. However, the lack of advantage for pupils of better-than-average ability may be owing to the current ignorance of their mental operations, and it is probable that, as ignorance is displaced by understanding, ability grouping may become increasingly advantageous to them.

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[1] Billett, *op. cit.*, p. 30.

[2] Billett, *op. cit.*, p. 32.

[3] Paul T. Rankin, "Pupil Classification and Grouping," *Review of Educational Research*, I (June, 1931), 200–230.

[4] Austin H. Turney, "The Status of Ability Grouping," *Educational Administration and Supervision*, XVII (January, February, 1931), 21–42; 110–127.

INTEREST GROUPING

Description of the plan. Having features in common with ability grouping, as described in foregoing sections, and at the same time having important differences is the plan of *interest grouping*. It has been described by E. C. Cline, principal of the Oliver P. Morton High School of Richmond, Indiana, the school in which it was originated.[1] In trying to find a satisfactory plan for differentiating education at the senior-high-school level, Principal Cline noted that the framework of a "kind of homogeneous grouping" on another than the usual basis was already at hand—on the basis of *interest*. That is, the school contained curriculum groups "composed of pupils who were pursuing similar paths because of similar educational and vocational interests." The start was made with these natural groupings, and the program of studies was consistently adapted so as to provide each group with educational materials useful to it—not by providing the group with a few specialized courses, but by adapting the material in all courses pursued by the group.

Out of consideration of the problem came the decision to develop two distinct groups of courses, one for the "academic" (college-preparatory) pupils, and the other for "nonacademic" pupils. The development began with the course of study in English, which was administered in two paths, the A path and the G (general) path. In the A path were retained the classics, grammar, and composition usually considered profitable for pupils preparing for college. The G path eliminated grammar, restricted composition to oral work and paragraph writing, and in literature sought primarily to raise the level of appreciation in contemporary reading. Although the two courses were not mutually exclusive, it was assumed in course revision that academic pupils were or could be interested in *ideas* and that the nonacademic pupils were interested in *peoples*, *things*, and *actions*.

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[1] E. C. Cline, "Differentiating Secondary Education," *School Review*, XLII (June, 1934), 431–439.

Differentiation was later extended to mathematics, science, and social science, following the formula applied in English. In science all pupils were together in biology, but thereafter there was complete segregation, with academic pupils taking physics and chemistry; nonacademic boys, a year of applied science; and nonacademic girls, a year of household science. The extent of segregation that had been achieved at the time of preparation of the description by the principal is indicated by the following percentages: foreign language and mathematics, 100; commercial subjects and English, 98; practical arts, 80; science, 40; and social science, art, music, and physical education, 0. The extent of prescribed content in each curriculum which, at the time of reporting, was found in no other curriculum is indicated in the following percentages: academic and vocational trade (four curriculums), 50; stenographic, 40; girls' general, 30; managing-selling, 28; general business, 5; and boys' general, 0.

Other features of the complete plan may be mentioned rather than described. For pupils whose plans for the future were undecided, the general curriculums (1) provided an assured cultural opportunity and (2) broadened the exploratory activities so as to afford assistance in making decisions as to futures. A double marking standard was introduced: in the specialized curriculums arbitrary standards were set by the known demands of the future careers of pupils, while in the nonspecialized curriculums the marking was on the basis of effort—on the achievement quotient. Integration of the whole group of pupils in the school was systematically provided for by nonsegregated groups in home rooms, biology, art, music, physical education, social science, and the extracurriculum.

Comment in appraisal of interest grouping. It is the belief of the originator of this plan of grouping that it has more advantages than ability grouping per se, and none of the disadvantages. He urges that the social objections often raised to ability grouping are largely nonexistent because the pupils group themselves. It is his belief that in actual practice the plan provides ability grouping. He believes, also, that real differences exist between the two sets of basic groupings, namely, academic and nonacademic, specializing and general, and that these are differences in *kind* as well as in *degree*.

The chief question that arises in considering the complete acceptability of this plan of providing for individual differences would seem to center around the assumption just referred to, that the differences in ability of pupils classified as "academic" and "nonacademic" are differences in kind as well as in degree. The assumption of difference in *kind* is probably not psychologically tenable. If it is not, then distinctions between "academic" and "nonacademic" pupils will often not be unequivocal and definitive. At the least, allowance would need to be made for some misplacement of pupils, as in the case of ability grouping in the stricter sense. With this thought in mind, Principal Cline was questioned concerning provisions for shift from one group to another, and he supplied the following illuminating statement:

> Fundamentally, no plan of differentiation is any stronger than the guidance work that precedes and accompanies it. Our 6–3–3 setup and our strong emphasis on guidance throughout the system have, of course, diminished the amount of transfer from one group to another; only about two per cent of our pupils change the grouping in senior high school.
>
> In addition to effective guidance, the amount of transfer is diminished, I believe, by the fact that no one *must* take nonacademic courses and by the fact that we have succeeded in making the nonacademic courses "respectable." . . . A pupil chooses one or the other not on basis of prestige, difficulty, or whim, but on basis of what fits his interest-need.
>
> We do occasionally find pupils who, the advisers feel, will do better if their courses are changed; such changes from academic to nonacademic or vice versa are usually made at semester ends, but are sometimes made in midsemester. In the early semesters, our academic and nonacademic courses keep a certain amount of similarity in content, so that such transfer is easily made. Those very few whose plans change late in their high-school course present more difficult problems; we do have three graduates of nonacademic training now in college and doing well, after having taken a sub-Freshman English course, as we told them they would have to do. Since our nonacademic courses are not merely emasculated academic courses and since they are handled as seriously by all concerned as are the academic courses, pupils in such courses do surprisingly well when they change to different conditions.
>
> In direct answer to your question: We allow transfer whenever the pupil desires it, encourage it when we feel the pupil's needs will be thus better served. We do not allow transfer when such transfer is obviously against pupil interest; for example, no college-preparatory pupil is allowed to substitute nonacademic English for academic English, because the latter is designed especially to meet Freshman English requirements. Ordinarily, a justifiable transfer entails no cost of credit or necessity for extra courses.

The plan of interest grouping appears to have promise and is deserving of more extended experimentation and adaptation.

PROVISIONS OTHER THAN ABILITY AND INTEREST GROUPING

The nature of provisions other than grouping. A well-nigh exhaustive list of provisions for individual differences being made by the secondary schools of the United States was obtained for the National Survey of Secondary Education [1] from an analysis of the replies of 8594 secondary-school principals. This list, along with data which furnish some idea of the frequency and estimated success of each provision, is given in Table 29, page 275.

These provisions were reduced in the Survey to seven categories: (1) homogeneous grouping, (2) special classes, (3) plans characterized by the unit assignment, (4) scientific study of problem cases, (5) variation in pupil load, (6) out-of-school projects and studies, and (7) advisory, or guidance, programs.[2] Of the seven, the first three—homogeneous grouping, special classes, and the unit assignment—were referred to as the *core elements* in a typically successful program to provide for individual differences.

The items selected for treatment. Not all the items listed above can be treated here. Some of the modifications, more especially the plans characterized by the unit assignment, clearly fall under the field of teaching method, do not come within the scope of administration, and are, therefore, excluded from anything more than mention here. Guidance, another important type of provision, is not considered at this point because treatment was accorded it in Chapter VI. The categories treated in the following pages were selected because they represent important administrative provisions that lend themselves to brief treatment; they are special classes, special coaching, variation in number of subjects taken, and promotion. It should not be assumed that other means of differentiation, such as scientific study of problem cases and out-of-school projects, are omitted from consideration because of unimportance.

It seems desirable, for the sake of amplification, to revert for a moment to the statement made near the opening of the foregoing paragraph in explanation of omitting treatment of procedures characterized

[1] Billett, *op. cit.*, p. 9.

[2] Billett, *op. cit.*, p. 11.

TABLE 29

FREQUENCIES WITH WHICH VARIOUS PROVISIONS FOR INDIVIDUAL DIFFERENCES WERE REPORTED IN USE, OR IN USE WITH UNUSUAL SUCCESS, BY 8594 SECONDARY SCHOOLS

PROVISION	USE		USE WITH ESTIMATED UNUSUAL SUCCESS		COLUMN 4 DIVIDED BY COLUMN 2
	Number	Per Cent	Number	Per Cent	
(1)	(2)	(3)	(4)	(5)	(6)
1. Variation in number of subjects a pupil may carry	6428	75	795	9	0.12
2. Special coaching of slow pupils	5099	59	781	9	0.15
3. Problem method	4216	49	444	5	0.10
4. Differentiated assignments	4047	47	788	9	0.20
5. Advisory program for pupil guidance	3604	42	540	6	0.15
6. Out-of-school projects or studies	3451	40	439	5	0.13
7. Homogeneous or ability grouping	2740	32	721	8	0.26
8. Special classes for pupils who have failed	2612	30	350	4	0.13
9. Laboratory plan of instruction	2611	30	323	4	0.12
10. Long-unit assignments	2312	27	349	4	0.15
11. Project curriculum	2293	27	365	4	0.16
12. Contract plan	2293	27	465	5	0.20
13. Individualized instruction	2145	25	309	4	0.14
14. Vocational guidance through exploratory courses	1911	22	186	2	0.10
15. Educational guidance through exploratory courses	1900	22	193	2	0.10
16. Scientific study of problem cases	1343	16	146	2	0.11
17. Psychological studies	1077	12	70	1	0.06
18. Opportunity rooms for slow pupils	946	11	172	2	0.18
19. Morrison plan	737	9	175	2	0.24
20. Special coaching to enable capable pupils to "skip" a grade or half grade	726	8	114	1	0.16
21. Promotions more frequently than each semester	686	8	103	1	0.15
22. Remedial classes or rooms	593	7	90	1	0.15
23. Adjustment classes or rooms	544	6	55	1	0.10
24. Modified Dalton plan	486	6	52	1	0.11
25. Opportunity rooms for gifted pupils	322	4	69	1	0.21
26. Restoration classes	191	2	24	0	0.13
27. Dalton plan	162	2	15	0	0.09
28. Winnetka technique	119	1	14	0	0.12
29. Other	101	1	—	–	——

by the unit assignment. Among such procedures listed in Table 29 are the problem method, laboratory plan of instruction, long-unit assignment, contract plan, and Morrison plan. Earlier reference to these procedures (page 268) touches on the fact that many modern books on methods of teaching accord them adequate treatment. The decision to exclude consideration here should nowise be interpreted as a disparagement of method in general in providing for individual differences. After all, method must remain a basic means of serving the needs of youth of diverse abilities. Certain authorities have gone so far as to contend that no other provision for individual differences is on a par with the unit assignment, and they would urge that most or all other procedures be discarded in its favor. In particular, some have contended that the unit assignment dispenses with the need for ability grouping, although it would appear that these two provisions are at least not administratively incompatible with each other and are in some respects reciprocally compensatory.

A provision not listed in the National Survey of Secondary Education, because nowhere found in operation at the time the Survey was made, is the plan to segregate pupils of different ability in separate schools. In point of fact, this plan is not often advocated. However, such a plan was put forward in an Inglis Lecture by John L. Tildsley when he was assistant superintendent of schools in New York City.[1] Although the emphasis in the lecture was on separate schools for the gifted, recommendation was also made of segregation in separate schools of less competent pupils. In effect, the proposal contemplated a three-track system of separate secondary schools.

The establishment of separate schools for pupils of different abilities is undesirable and in all likelihood unnecessary. It is undesirable because it is undemocratic. In all probability it is correct to assume that the American people would not tolerate a plan of school organization encouraging stratification of our society, even on an intellectual basis. It is almost certainly unnecessary, because secondary schools are still far from exhausting the possibilities of provisions for individual differences *within* schools. Let the doubter examine such evidence as the National Survey of Secondary Education by Billett, on which this chapter has drawn heavily, noting both the range of promising provisions and the small proportions of schools in which the provisions have been made.

If separate schools are essential to differentiation, one wonders whether all the communities now having only a single high school, which make up all but a minority of the systems of the country, must reconcile themselves to perpetually inadequate provisions for their youth of secondary-school age.

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[1] John L. Tildsley, *The Mounting Waste of the American Secondary School.* The Inglis Lecture, 1936. Cambridge: Harvard University Press, 1936.

SPECIAL CLASSES AND SPECIAL COACHING

Reasons for special classes. The special class is for the special pupils who deviate markedly from the normal and who may be found to be few in number even in large schools. An exhaustive list of types of such pupils would be long. In this list would be found those pupils who classify as the exceptionally slow and the gifted, those who have entered high school with deficiencies in early training (often in the essentials of reading and arithmetic), those who have been ill or at work, those who are crippled or maimed by disease, and so on. As is pointed out in the National Survey of Secondary Education,[1] the special classes enroll a heterogeneous array of pupils whose needs are so specialized as to call for extraordinary attention.

Assigning pupils to special classes. There are no general criteria to guide in the assignment of pupils to special classes. Each pupil is carefully studied. Factors like industry, health, intelligence, social and physical maturity, and scholarship are considered and each case is then determined individually in the light of information on these items.

Permanency of assignment. The assignments of subnormal pupils to special classes are usually to be considered fairly permanent. Others are removed from or assigned to the special classes as occasion demands.

Modifications following assignment. What was said of the need for modification of content and method under ability grouping is just as apropos to a discussion of the special class. In practice, however, the regular curriculum remains the basis for work done, with the method modified more frequently than the content. Writers on the subject recurrently urge that a more fundamental attempt be made to adjust the work of the school to the needs and interests of the individual pupil. It seems practically certain that the educational gains which logically ought to follow modification would be sufficient to justify a more general appropriation of this recommendation.

Practices in individual schools. Examples of many types of adjustments being made in individual systems are furnished in the National Survey of Secondary Education,[2] of which only a few can be cited here. An example of acceleration is found in the D. A. Harmon Junior High School of Hazelton, Pennsylvania, where a group of gifted pupils completed the work of grades VII and VIII in one year. The follow-up records show that later scholastic and social results did not suffer because of the acceleration.[1]

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[1] Billett, *op. cit.*, pp. 195–226.

[2] Billett, *op. cit.*, pp. 214–224.

An extra half day is given the pupils in Gary, Indiana, where Saturday classes are scheduled from 8.15 A. M. to 11.15 A. M. All children may attend if they desire. Capable children pursue projects of interest to them. Others may make up work and receive the special help of regular teachers. The extra half day is popular, as is evidenced by the fact that in March, 1930, a total of 165,493 pupil-hours were spent in Saturday classes.

A daily schedule of corrective classes in English and mathematics has been maintained in Garfield High School of Los Angeles. Pupils are assigned to these classes from their regular study periods on the basis of scores made on standardized tests.

An occupational curriculum for slow groups is given in the Cass Technical High School of Detroit in grades X, XI, and XII.

Nearly every large city has found it advisable to segregate pupils who constitute serious behavior problems. It is the rule further to segregate on the basis of sex. In some cities, the groups are so large that special schools are provided. Many schools set aside definite periods for coaching and individual instruction for pupils in special need of it.

Special classes are formed in a number of high schools after pupils have demonstrated inability to progress with the group to which they were initially assigned. Special classes in English are organized in the James Monroe High School, New York City, at the end of the first semester for pupils who have failed. A special teacher in the Jordan High School of Lewiston, Maine, coaches 20 pupils each day who are in need of special help in English, French, Latin, mathematics, or history. This extra help enables from three fourths to nine tenths of the pupils to pass at the end of the semester.

A special reclassification department is organized in the Arsenal Technical High School in Indianapolis. Help is given the pupil on a lesson sheet or on an individualized instruction basis in English, mathematics, social science, science, commercial subjects, and industrial arts. The primary object of the department is to give pupils such help as may be needed to enable them to return to their normal schedule.

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[1] For an extended report on this type of provision for superior pupils, see articles by Walter L. Wilkins, "High-School Achievement of Accelerated Pupils" and "The Social Adjustment of Accelerated Pupils," *School Review*, XLIV (April, June, 1936), 268–273; 445–455.

Special coaching. The practice of special coaching is so frequently used and so well known as to require only the briefest comment. It probably originated with the beginning of instruction in classes, when some pupils were found to be lagging behind others, and it should not be surprising that the practice is one of those most frequently reported to the investigator in the National Survey of Secondary Education. (See provision 2 in Table 29, page 275.) The practice is rementioned here largely because it is sometimes systematized, as has just been indicated, by organizing the pupils into special classes or sections. In an occasional school, coaching teachers are provided, but the remedial work is done with individual pupils instead of in class groups.

VARIATIONS IN NUMBER OF SUBJECTS A PUPIL MAY CARRY

Additional subject load. One of the traditional methods in the high school of recognizing superior ability is through affording the pupil the opportunity of carrying additional subjects. When one subject is added, the subject load is increased 20 to 25 per cent. Care will need to be exercised in deciding whether the pupil is able to carry the additional load without showing a decline in the general quality of his work. A common practice in judging the ability of the pupil to carry additional work is to use the quality of his past work as a criterion. The following rule, taken from a high-school manual, illustrates the usual procedure:

> In order to get permission to carry five solids a pupil must have had an average of B in each of his subjects during the preceding semester. Chorus, Glee Club, Physical Education, or any fractional credit subject is not classed as a solid.

The basis in this instance is past marks. Marks, however, do not constitute an adequate basis. A pupil may make a high record during a given semester, but at the expense of his maximum effort. If, then, he increases his subject load by 20 to 25 per cent, the general quality of his work must decline. In such a case, if past marks are to be the basis, there should be applied some additional rule which will require the dropping of the added work if the quality of the pupil's work declines.

The selection of a pupil to carry extra work may well be decided by two criteria: previous marks and intelligence-test scores. The intelligence scores serve to show whether the ability of the pupil justifies the prediction that he will continue to do superior work if his load is increased by a fifth to a fourth. The purpose of the provision being what it is, the plan of taking extra work should not degenerate into a scheme for permitting pupils who have previously failed to regain normal standing. Extra pupil load at all times is to be considered as an adjustment made for the pupils whose abilities are thereby better served. The permission to carry such work should be granted only after a careful analysis of each request.

Reduction in subject load. The second adjustment, of reducing the subject load of less capable pupils, is not so favorably regarded by school administrators as the one just considered. There is no promise that failure to do a normal amount of work will be remedied by giving the pupil more time to study fewer subjects. More fundamental adjustments are usually called for, such as providing curriculum experiences more nearly consonant with the pupil's ability and employing new and more effective techniques which give more adequate recognition to his interests and abilities. However, the plan has its advantages in individual instances.

Relation between subject load and scholarship. The justification for varying the load carried by individual pupils must rest ultimately on the effect the variations have on the work of the pupils. Seemingly the quality of work done in a particular subject by a pupil of superior ability will not suffer when his load is increased by a reasonable amount. A comparison in the Los Angeles city schools of the scholarship averages of high-school pupils carrying four "solids" and pupils who were pursuing five showed little difference between the two groups.

When the factor of intelligence was controlled by selecting pairs of pupils with equal or nearly equal intelligence quotients, one pupil of each pair carrying four "solids" and the other five, the scholarship results in the subject carried by both members of the pairs were as follows:

> . . . for the 10th-grade boys there is no difference; for the 11th-grade girls there is a very slight difference in favor of the 4-solid group; and for the 12th-grade girls there is a slightly larger difference in favor of the 5-solid group.[1]

The correlation between grade points and intelligence was found in the same study for 139 pairs of girls in Grade X. The correlations were approximately the same for both groups, the coefficients for the four-solid group and the five-solid group being .44 and .52, respectively.

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[1] Celia D. Pierson and Charles Nettels, "The Scholarship of High School Pupils Taking Five Solids versus Those Taking Four Solids," *Educational Research Bulletin* (Los Angeles City Schools), VII (October–November, 1927), 13.

There need be little fear on the part of high-school administrators that the scholastic work of many pupils will suffer when the load is increased, provided proper analysis of each individual is made before permission to increase the load is granted or individual pupils are encouraged to take on additional courses.

Additional activities. A third method of varying the pupil's load is to leave the subject load relatively constant for all pupils but to vary the number and kind of activities in which pupils engage. Club activities may serve this purpose well for superior pupils. Activities like dramatics, debate, and writing school news can make prodigious inroads into a pupil's time. At the same time, these activities are often the most desirable because in them each individual is stimulated to make his unique contribution to common ends. The same talents are not called for as is the case in the formal subjects; rather, a diversity of talents is desirable, so that all have opportunity to function in a social group. Enough of such activities are present in most schools to absorb the excess time and energy of all those who need additional work.

PROMOTION

Relation to providing for individual differences. The machinery of promotion set up to advance pupils from grade to grade, from school to school, and from subject to subject has in the past often been of such rigid character that it has defeated rather than encouraged attempts to adjust the school to individual differences. Practices in promotion have often been based on the completion of uniform set tasks which, in turn, have presupposed an elaborate series of logical subject sequences.

Promotional practices have, in general, emphasized the existence of two distinct classes of pupils—those who satisfactorily complete the set tasks and those who do not. The decision on which of these classes any particular pupil would finally be assigned to was made at the end of a certain learning period, usually the semester. This time is too late to give recognition to differences in learning capacities. To give proper recognition to the differences that exist, the discrepancy which has commonly existed between the times when promotions are made and when adjustments are attempted will need to be greatly reduced. It may even be cogently argued that the times for the two processes should be made identical.

If such a development could be achieved, promotion would mean the continuous advancement of the pupil from experience to experience, and it would not occur at the end of an educative process defined in terms of time elements such as months or semesters. Promotion, instead, would be as continuous as is the educative process itself.

It is evident that traditional promotional practices have been of questionable worth in adjusting the school to individual differences. Should the educational process come to be viewed as a continuous reconstruction of experience which adds meaning to life and increases the power of the individual to control subsequent experience, the terms *promotion*, *demotion*, and *failure* may eventually become educational anachronisms.

PROVISIONS IN THE SMALLER SECONDARY SCHOOL

Ability grouping in the small school. The offhand judgment of most persons would be that ability grouping is out of the question in schools with enrollments smaller than 40 to 50 pupils per grade, and the judgment is doubtless correct as concerning grouping *into* class sections. Grouping *within* class sections is entirely feasible in the small school, however, and according to the National Survey of Secondary Education,[1] it is sometimes practiced, although apparently not so often as is desirable.

Other provisions. Several other provisions for individual differences, previously discussed in this chapter, are available for use in smaller schools. Procedures characterized by the unit assignment would certainly be among these, as these procedures are nowise dependent on size of enrollment. Variation in number of subjects taken and special coaching are likewise available, although coaching in special classes is out of the question. Flexibility of promotional arrangements is within the range of feasibility with small enrollments. After all, a number of highly serviceable provisions are at hand for use in such schools.

The recompense of small enrollments. In considering the possibilities of provision for individual differences in small schools, one should not lose sight of the advantage to the individual pupil (ignoring for the time being certain social disadvantages) of membership in a small school enrollment. What may be referred to as the "depersonalization" of the educational process, which, because of sheer numbers, sometimes comes with large enrollments, is almost inconceivable in the small schools, and this condition affords something in the way of compensation for the lesser number of provisions practicable in such schools.

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[1] Billett, *op. cit.*, pp. 42–43.

THE OBLIGATION OF THE PRINCIPAL AND HIS STAFF

The large number of administrative plans which have been brought into being within the past decade by educators in order more adequately to care for the individual differences among pupils attest to the responsibility of principals and teachers for providing adjustments to meet this need. Plans range from acceptance of the present curriculum, with recognition of the exceptionally slow or the rapidly progressing pupil by permitting him to carry fewer or more subjects, to launching a full experimental plan like those in schools where complete individualization has been undertaken. Practice shows most schools to be keeping middle ground. Grouping pupils is a part of this middle ground, and it is the provision in most common use. Some schools go further and modify the curriculum and the methods to suit the groups. Practice is not, of course, an infallible guide. Experimentation must continue. Proposals await tryout and testing. The principal is fulfilling his highest function when he makes it possible for adjustments designed to facilitate the growth of each pupil to be tried out and tested. In every school, therefore, one or, preferably, more plans should be in the process of trial in an attempt to solve the problems of adjusting the work of the school to individual differences.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Obtain two types or, preferably, three types of data for a number of pupils—say 90 or more—in some grade of a secondary school. Measures of intelligence (such as intelligence quotients or scores on group tests), marks on subjects, or scores on achievement tests will best serve the purpose.
   (a) Group the pupils into nonoverlapping ability groups on the basis of that single measure which you believe should be the primary criterion for grouping.
   (b) Group the pupils into ability groups by using a multiple technique. Employ the same primary criterion as in (a). Then apply a second criterion

terion to discover the discrepant cases. Designate how the discrepant cases are finally to be assigned.

(c) Employing the two bases used in (b), group the pupils into ability groups by using a composite score technique which involves the standard deviation.

2. Obtain the intelligence quotients of 150 pupils of Grade IX, or arrange a hypothetical distribution of 150 pupils. Classify the pupils into overlapping groups. First, study the distribution and determine what a reasonable restriction of the variability would be. Next, establish the range of variation to be permitted within a single group. Finally, make the assignments to classes.
3. What do you consider to be the best policy with respect to grouping—having grouping without overlapping, having a small amount of overlapping, or having restricted heterogeneity for each group but with considerable overlapping of groups? Justify your choice.
4. Show in what way the training of the teacher is related to the degree of effectiveness of any plan of ability grouping.
5. Explain in what ways the methods used for slow-learning pupils should differ from the methods used for rapid learners.
6. List the principal obstacles to adjusting the content of instruction to the different levels of ability, and indicate what further modifications will need to be made within the school before such obstacles can be removed.
7. Show in what way some school of your acquaintance has unique characteristics which would have to be taken into account when planning a program for the recognition of individual differences.
8. Justify the program for individual differences in some school of your acquaintance, using as a basis for your discussion the following seven provisions employed in outstanding secondary schools: (1) ability grouping, (2) special classes, (3) plans characterized by the unit assignment, (4) scientific study of problem cases, (5) variation in pupil load, (6) out-of-school projects and studies, and (7) advisory, or guidance, programs.
9. Show in what ways a group of small high schools might advance their programs of provisions for individual differences by working out some plan of co-operation, such as jointly employing specialists.
10. Explain whether ability grouping should be in terms of relatively unchanging traits or in terms of relatively changing traits. Why?
11. Suppose later research shows that, if the heterogeneity of a group with respect to a single dominant learning trait is decreased, it will bring together a more nearly homogeneous socio-economic group. Would this be desirable? How would the principle then need to be changed?
12. What criteria would you propose for deciding what kinds of out-of-school projects or studies should be awarded school credit?
13. Plan a comprehensive investigation intended to afford an objective appraisal of ability grouping as practiced in some secondary school.

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Chapter VIII

Making the School Schedule

CRITERIA FOR THE SCHEDULE

Basic character of this administrative function. Time arrangements of some sort are needed for the realization of efficiency in the operation of every school. Previous chapters have pointed out that pupils must be carefully classified into groups for economical instruction and that they must be offered a wide variety of educational opportunities. To bring the groups into proper conjunction with the opportunities clearly implies a schedule. Following chapters will stress the employment of teachers and the provision of the building facilities and equipment which are demanded by the varied elements of the program of studies. Effective utilization of these educational factors assumes assignments based on a timetable. Thus it is apparent that making the school schedule is a heart process of administration. By means of the schedule, the media and the objects of educational endeavor are marshalled into functional association.

Performance of this office was shown by Koos [1] to be more characteristically a responsibility of the principalship than is any other administrative or supervisory service. The National Survey of Secondary Education, from a study of schools noteworthy for their practices in registration and schedule making, reported that in most schools the schedule is made by the principal alone or in association with a member of his staff, but that in a few schools enrolling fewer than 300 pupils the superintendent plays a part.[2]

Making the schedule and putting it into operation is a test of foremanship. A first qualification of the principal is that he should be able to organize the school on a smooth-running basis without loss of time. Many of the steps in accomplishing this organization may and should be reduced to a clerical routine, but a good sense of educational values and loyalty to educational ideals must guard the procedure against undue mechanization.

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[1] Leonard V. Koos, *The High School Principal*, p. 88, Table XVI. Boston: Houghton Mifflin Company, 1924.

[2] B. Lamar Johnson, "Registration and Schedule Making," Part II of A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *The Program of Studies*, Monograph No. 19, p. 309, Table 18. United States Office of Education, Bulletin No. 17, 1932.

Guiding principles to be observed. What principles or standards shall govern this task of drawing up the schedule? Quite clearly, the function should be performed in the light of certain goals to be attained, certain instructional and learning conditions to be established. The following are what appear to be the more important considerations, listed as principles to be observed:

1. *The schedule should afford each pupil the opportunity to pursue studies which his individual needs and interests justify him in desiring.* The realization of this criterion is of necessity limited by the offering of the school. It is the schedule, not the program of studies, with which we are here concerned. The principle simply means that if chemistry is the elective subject which fits John's needs and interests, the schedule should be made to accommodate John rather than be drawn up so arbitrarily as to force him into French or typewriting. While the principle may seem obvious, its wholehearted acceptance by the schedule maker multiplies the difficulty of his task.

2. As may be judged to follow from the first criterion, *the school schedule must be based on and prepared in the light of the choices of subjects made by the pupils under guidance.* A question of priority is here raised and settled. *Before* the schedule of classes can be or should be made, the pupils will register on cards, or slips, their choices of subjects, profiting by such advisement as the school's guidance program affords. From such registration cards, the schedule is derived.

3. *Teacher qualifications must be thoughtfully weighed and optimally used.* Usually this principle has reference to the subjects in which teachers are prepared and for which they are certified. In those states where subject certification prevails, the schedule maker is compelled to pay close attention to this factor. The principle, however, implies more than a respect for college semester hours. It may well involve the careful assigning of teachers to classes of various types, ages, and interests, according to the sex, age, experience, and personalities of the teachers. Such matters as special aptitudes, physical strength, and extracurricular responsibilities must often be considered in the scheduling of teachers to classes and to schoolrooms.

4. *The schedule must make it possible for teachers to know pupils and to know them well enough to individualize educational treatment.* In a thoughtful study Harry L. Baker found that "High-school teachers know less than a fourth of the facts about their pupils which educators, guidance

specialists, and psychologists consider of importance in the educational treatment of individual children."[1] Is this lack of knowledge of pupils attributable to the current state of extreme departmentalization which gives each teacher slender contacts with many pupils rather than intensive contacts with a few pupils? Baker advances it as one explanation.

Acceptance of this principle in schedule making would entail changes of a revolutionary character in the organization of many of our secondary schools. It is not easy to answer under just what conditions of numbers and of contacts a teacher can be expected really to know his pupils. However, the next section of this chapter presents analyses of some schedules which without doubt represent a serious lack of respect for this principle.

5. *The schedule must equalize the load of teachers, giving due consideration to all the factors that contribute to a teaching load.* The intimate relationship of the functions of making the school schedule and of assigning the teaching load is readily apparent. For a detailed consideration of the second of these responsibilities, see Chapter X. To build the schedule so as to be just to all the teachers and likewise thoughtful of their convenience and comfort is to make a vital contribution to faculty morale.

6. *The schedule should equalize class sections according to standards established in advance.* For example, if the 90 freshmen of a school are to be taught English in three sections, it is poor scheduling to have those sections enrolling 15, 30, and 45, respectively. Careful thought should be given to the desired size of sections when the school schedule is prepared and again when the pupils' schedules are made up.

7. *The schedule must be made to give each pupil and teacher as simple and regular an arrangement of his class and study-hall engagements as is possible.* It should be made easy for pupils and teachers to establish habits—habits of being in a given place at a given time, of having in hand the correct books or other materials required for each class, of having outside preparation made, and so on. By reducing as much as possible of one's life to routine, energies may be concentrated to greater advantage. The best practical schedule for the school is a *daily* schedule—the same subjects coming at the same time and in the same place every day. As will be shown in the next section, there is a tendency in some schools—especially junior high schools—to overlook the significance of time-and-place regularity on a simple daily basis and to build sched-

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[1] "High-School Teachers' Knowledge of Their Pupils," *School Review*, XLVI (March, 1938), 187.

ules quite largely on a weekly basis. Where such practice is being followed, realization of this principle will necessitate reorganizing the program of studies on a five-days-a-week basis before construction of the schedule can be started.

8. *The schedule should provide for such alternation of the activities of the pupil as will obviate fatigue and respect convenience.* If the pupil has separate study periods, they should be scheduled in some degree of alternation with his subjects, thus contributing to a restful variation in activity. If the pupil's subjects involve his presence in parts of the building which are relatively remote from each other, the time arrangement of his day should be planned with a view to convenience. To achieve conditions favorable for learning by a sensible conservation of time and energy is the purpose of this principle.

9. *The schedule should aim at the most appropriate use of the space, the varied facilities, and the equipment of the school.* Axiomatic as this principle may seem, its realization depends on the schedule maker's well-developed understanding of the material requirements for the teaching of the various subjects. Just as the provision of a well-planned, well-equipped building is testimony to high-grade professional practice in education, so the maximum use of those facilities is a challenge to organizational ability and to educational statesmanship.

10. *The schedule is the means of assuring the smooth functioning of the school from the very beginning of the year or term for which it is made.* The implication of this principle is that all the steps in schedule making must be carried out in advance of the period which the schedule is to serve. Adjustments will always be necessary when a schedule is first put into operation, but adequate foresight will render them few and minor in character. The school which is started without confusion or lost time claims the respect of pupils, parents, and teachers.

A considerable proportion of this chapter is devoted to a detailed description of schedule making in which the working of the above principles will be made evident. Before entering into this presentation of practical procedure, however, a clearer understanding of some of the principles may be gathered from objective studies of schedules.

ANALYSIS OF JUNIOR-HIGH-SCHOOL SCHEDULES

Number of periods per week for which subjects are currently scheduled. Hutson and Keifer collected a random sample of the schedule cards of the pupils in 24 medium-sized junior high schools in

Western Pennsylvania.[1] They analyzed the data on the cards to discover, first, the number of periods per week for which the subjects were scheduled. Table 30 [2] reproduces an illustrative sample of their findings, showing, for all subjects taught in Grade VIII in 10 or more of the schools, percentage distributions of the schools teaching each subject, according to the number of periods per week for which they schedule the subject. It will be observed that English and mathematics are taught either four or five times a week, and that history, geography, junior business training, and general science are usually taught with those frequencies. On the other hand, home economics, music, gymnasium, art, shop, and health are scheduled not more than two periods a week in a majority of the schools. A glance over the table shows that subjects are scheduled three times a week rather less often than one, two, four, or five times. The summary at the foot of the table verifies this impression and emphasizes the marked tendency to offer subjects one period a week.

TABLE 30

Percentage Distribution of 24 Junior High Schools of Pennsylvania According to the Number of Periods a Week the Most Common Eighth-grade Subjects Are Taught *

Subject	Number of Schools Teaching Subject	Percentage of Schools Scheduling Subject						
		1 Period	2 Periods	3 Periods	4 Periods	5 Periods	1 Double Period	Total
English	23	—	—	—	30.4	69.6	—	100.0
Mathematics	23	—	—	—	47.8	52.2	—	100.0
Home economics	22	18.2	40.9	—	—	4.5	36.4	100.0
Music	21	90.5	4.8	—	4.8	—	—	100.1
Gymnasium	20	50.0	50.0	—	—	—	—	100.0
History	20	—	5.0	5.0	60.0	30.0	—	100.0
Art	19	84.2	15.8	—	—	—	—	100.0
Shop	19	10.5	52.6	—	—	—	36.8	99.9
Geography	16	—	—	18.8	37.5	43.8	—	100.1
Health	16	87.5	12.5	—	—	—	—	100.0
Junior business training	12	—	16.7	16.7	41.7	25.0	—	100.1
General science	10	—	30.0	—	70.0	—	—	100.0
All subjects in all schools	221	29.4	18.6	2.7	22.2	20.4	6.8	100.1

* Minor deviations footnoted in the original table are here omitted.

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[1] P. W. Hutson and J. C. Keifer, "Schedules of Junior High School Pupils," *School Review*, XLVI (November, 1938), 667–678.

[2] *Ibid.*, p. 669, Table 1 (adapted).

A cursory examination of Table 30 as a whole suggests that to a considerable extent each day of the week must be somewhat different from every other day of the week. The principle of regularity must be observed in a weekly rather than a daily cycle. A legitimate question to ask as one surveys these data is, Can habits be developed in a weekly sequence of events as well as in a daily sequence? It does not seem likely.

Number of subjects simultaneously carried by junior-high-school pupils. Drawing again on the study just cited, a count of the number of subjects each pupil was carrying is summarized in Table 31.[1]

TABLE 31

PERCENTAGE DISTRIBUTION OF PUPILS IN GRADES VII, VIII, AND IX ACCORDING TO NUMBER OF SUBJECTS CARRIED

NUMBER OF SUBJECTS	PERCENTAGE OF PUPILS		
	Grade VII (234 Pupils)	Grade VIII (234 Pupils)	Grade IX (236 Pupils)
14	1.7	—	—
13	2.1	4.3	—
12	9.8	15.4	5.5
11	27.4	21.4	14.4
10	16.2	15.4	6.8
9	33.8	26.9	16.9
8	8.5	13.2	20.3
7	0.4	3.0	16.9
6	—	—	12.7
5	—	0.4	6.4
Median number of subjects	10.5	10.4	8.7

It shows considerable variation within each grade, the differences no doubt representing primarily the diverging practices of schools. The medians at the foot of the table make it plain that the curriculum of Grade IX is administered through fewer subjects than is the case with grades VII and VIII. This difference is no doubt attributable to the domination of college-entrance requirements. Carnegie units must be earned in Grade IX; the earlier junior-high-school grades are free from such restrictions.

The relatively large number of subjects is accounted for by the numerous one-period, two-period, three-period, and four-period subjects shown in Table 30. One may be justified in suspecting that these factors make the task of scheduling a complicated process.

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[1] *Ibid.*, p. 673, Table 3.

The time arrangements found in pupils' schedules. Hutson and Keifer tabulated all the various time arrangements on which they found subjects scheduled, as shown by the pupils' schedule cards. They found, for instance, 34 different time arrangements on the cards of the eighth-grade pupils. Table 32 [1] presents the 15 time arrangements each of which was found on 10 per cent or more of the pupils' cards. For each time arrangement there is shown a percentage distribution of the pupils according to the number of subjects which they had on that arrangement. For example, the first line shows that 19.7 per cent of the pupils have 4 subjects scheduled on the time arrangement designated as 5–1, 8.1 per cent have 3 subjects so scheduled, and so on.

TABLE 32

PERCENTAGE DISTRIBUTION OF SCHEDULES OF 234 EIGHTH-GRADE PUPILS ACCORDING TO NUMBER OF SUBJECTS MEETING UNDER VARIOUS TIME ARRANGEMENTS

TIME ARRANGEMENT *	PERCENTAGE OF PUPILS HAVING TIME ARRANGEMENT						
	In 5 or more Subjects	In 4 Subjects	In 3 Subjects	In 2 Subjects	In 1 Subject	In No Subject	Total
5–1	—	19.7	8.1	11.5	15.0	45.7	100.0
4–1–c	2.6	2.6	2.1	10.7	17.1	65.0	100.1
4–1–i	2.6	—	4.3	16.7	16.2	60.3	100.1
3–1–i	—	—	—	3.4	11.5	85.0	99.9
2–1–c	—	2.1	3.4	3.0	14.1	77.4	100.0
2–1–i	—	—	3.4	10.3	22.6	63.7	100.0
1	18.8	22.2	36.8	10.7	11.5	—	100.0
1 Double Period	—	—	—	4.3	35.0	60.7	100.0
5–2	—	—	2.1	3.8	9.0	85.0	99.9
4–2–i	—	.9	1.7	5.1	6.8	85.5	100.0
2–2–c	—	—	—	.9	15.4	83.8	100.1
2–2–i	—	—	—	3.8	18.8	77.4	100.0
5–3	—	.4	1.3	2.1	12.0	84.2	100.0
4–3–c	—	—	.4	.4	9.8	89.3	99.9
4–3–i	—	—	.4	2.1	12.4	85.0	99.9

* The first numeral indicates the number of times a week that the class meets; the second numeral, the number of different periods of the day that the class meets; and the letter, whether the class meets on consecutive days (c) or has one or more days intervening (i). Thus, "5–1" indicates that the class meets five periods a week at the same period every day; "4–1–c," that the class meets four periods a week at the same time every day and on consecutive days; "4–1–i," that the class meets four periods a week at the same time every day with one day intervening.

Obviously, the 5–1 time arrangement is the simplest. If all subjects were on that basis, the pupil would have the same schedule every day. While nearly 20 per cent of the pupils have 4 of their subjects so scheduled, 45.7 per cent have no subject so scheduled. The seventh line shows the classes which meet one period a week. Note that all pupils have one or more such time arrangements in their schedules. A slight computation shows that the median number of such time arrangements per pupil is approximately 3.75. The home-room period, assembly period, and activities period, all of which appeared on the schedules of some schools, were arbitrarily excluded from all tabulations.

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[1] *Ibid.*, p. 671, Table 2 (adapted).

The less frequent time arrangements, not reproduced in Table 32, represent even greater irregularity than those shown. Two pupils had subjects scheduled on the 5–5 arrangement, which means that while the class meets every day, it meets at a different period every day. Nineteen pupils had the serious irregularity which is indicated by the 5–4 time arrangement for a total of 39 subjects.

Table 32 suggests what an entangling task is the scheduling of the junior-high-school program of studies. While it is true that no one school has all these various time arrangements, the highly involved character of the schedules of many schools can hardly be doubted. Are such schedules conducive to learning?

Number of different pupils that teachers have. The fourth principle stated in the previous section called for such a schedule that teachers could come to know their pupils well. It will be apparent that if full departmentalization prevailed in the schools studied by Hutson and Keifer, some teachers would meet more than 300 different pupils each week. The teacher who meets pupils only once a week must have approximately 25 different classes; the teacher who meets pupils twice a week must have approximately a dozen different classes. Although no data on this point were gathered by Hutson and Keifer, the fact of extreme departmentalization in our junior high schools is common knowledge and is supported by Hutson's study of the junior high schools of Johnstown, Pennsylvania (see data in Chapter X) and by the Steinmetz investigation of the junior high schools of Chicago. The latter study was concluded as follows: [1]

1. Pupils of all grades, except in one class in one school, had a different teacher in every subject.
2. The junior high schools were committed to the highest possible degree of subject departmentalization.
3. The proportion of teachers who gave instruction in a single subject varied according to the size of the school and the skill of the schedule maker.

This type of schedule making signifies such domination of the concepts of expertness in subject matter and of the assumed convenience of teachers that the creation of conditions favorable to teacher knowledge of pupils is overlooked.

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[1] Kathryn E. Steinmetz, "Departmentalization in the Junior High Schools of Chicago," *School Review*, XL (December, 1932), 769.

Analysis of the schedule of a single junior high school. The type of junior-high-school schedule which has been portrayed may be found elsewhere than in Pennsylvania. Table 33 presents an analysis of the schedule of classes in the junior high school at Wellesley, Massachusetts.[1] The two left-hand columns show that there were 99 classes which met once a week (this included some shop and home-economics classes with double periods), 27 which met twice a week, and so on down to 31 which met five times a week. The third column—number of class meetings per week—was arrived at by multiplying the number of classes by the number of times they met per week. Columns two and three are totaled, showing that there were 205 separate and distinct class groups to be administered for a total of 489 meetings per week. Dividing 489 by 5 yields 97.8, which is the number of class groups that would have to be administered if all subjects were on a five-periods-a-week basis. This contrast throws into sharp relief the administrative burden entailed by the existing schedule.

TABLE 33

Distribution of Classes in Wellesley, Massachusetts, Junior High School According to Number of Times a Week They Meet and Number of Different Periods They Meet

Number of Times Classes Meet a Week	Number of Classes	Number of Class Meetings a Week	Classes Distributed According to Number of Different Periods a Week They Meet				
			1 Period	2 Periods	3 Periods	4 Periods	5 Periods
1	99	99	99	—	—	—	—
2	27	54	11	16	—	—	—
3	11	33	—	2	9	—	—
4	37	148	—	4	22	11	—
5	31	155	—	—	12	15	4
Total....	205	489					

The remainder of Table 33 presents a distribution of the class groups according to the number of different periods a week they met. It shows, for instance, that of the classes meeting twice a week, 11 met the same period both days, while 16 met at two different periods, as Monday the second period and Wednesday the fourth period. Modal practice is for three-periods-a-week and four-periods-a-week classes to meet three different periods and for five-periods-a-week classes to meet four different periods. Thus the simple 5–1 time arrangement did not appear in this school, but all five-periods-a-week classes were on the 5–3, 5–4, or 5–5 plan. Surely the maximum of complexity is represented in such a schedule.

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[1] P. W. Hutson, "The Junior High School," *Wellesley School Survey*, C. E. Prall, Director, p. 59, Table No. 20. Wellesley, Mass.: Town of Wellesley, 1935.

> Irregularity begets irregularity. The complexities of the Wellesley junior-high-school schedule are so extreme as to foster exceptions in the administration of the program of studies to the pupils.[1]

Significance of these analyses. There is reason to believe that junior high schools in many sections of the country have schedules similar to those which have been analyzed. Their programs of studies indicate the probability of irregular and complex schedules. On the other hand, some junior high schools are known to have organized their work so that practically all classes meet with daily regularity. The junior high schools of Richmond, Indiana, exemplify this plan. Some have also discerned the disadvantage of extreme departmentalization. They have taken steps to give every pupil a teacher who has a fair opportunity to come to know him by virtue of teaching him two or three subjects. The teacher thereby has extensive daily contacts and meets a relatively small number of different pupils.

One lesson to be learned from these analyses is that the principal should look critically at the program of studies which he is to schedule. If he has inherited a program which calls for the administration of the pupils' education through numerous subjects carried simultaneously and in classes meeting one, two, three, or four times a week, he should seek a modification of the program. Referring to the principles to be observed in schedule construction, he will recast the program so that the principles are not violated.

While no similar analyses of senior and four-year high-school schedules are available, ordinary familiarity with them tells us that most of them are regular, with practically all subjects scheduled five times a week and at the same time and place every day. This regularity may be ascribed to the Carnegie unit, which has perhaps contributed an inflexibility in some respects unfortunate. The problem of scheduling in the upper school is therefore simplified in one important particular.

DECISIONS PRELIMINARY TO MAKING THE SCHEDULE

Length of the school day. While scientific bases for deciding what should be the length of the school day and the length and number of class periods are lacking, considerable knowledge of practice in these matters is available. Table 34 [1] shows the length of the school day for a large number of four-year high schools, representing Eastern, Western, and North Central states. Noon hour, lunch periods, and intermissions for the passing of classes are counted as part of the school day. While the range of the distribution of the schools is wide, the median of 7.05 hours is representative, since 70 per cent of the schools have school days between 6½ and 7½ hours in length and 90 per cent are within the two-hour range from 6.00 to 8.00.

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[1] *Ibid.*, p. 60.

TABLE 34

PERCENTAGE DISTRIBUTION OF 610 HIGH SCHOOLS ACCORDING TO LENGTH OF SCHOOL DAY, INCLUDING ALL INTERMISSIONS

NUMBER OF HOURS	PER CENT	NUMBER OF HOURS	PER CENT
4.00–4.49	.82	7.00–7.49	38.52
4.50–4.99	2.79	7.50–7.99	11.48
5.00–5.49	.66	8.00–8.49	1.64
5.50–5.99	2.30	8.50–8.99	.98
6.00–6.49	8.20	9.00–9.49	.98
6.50–6.99	31.48	9.50–9.99	.16

Number of periods in the day. Among the 690 schools which indicated in the survey just cited the number of regular periods into which the day is divided, 187 reported 6 periods, 171 reported 7 periods, and 239 reported 8 periods.[2] These comprised 86.5 per cent of the schools. The National Survey of Secondary Education, in a study of 178 selected schools of all types, also found 86.5 per cent of the schools to be divided among 6, 7, and 8 periods a day, as follows: 68, 6 periods; 36, 7 periods; 50, 8 periods.[3] This investigation showed a marked tendency for separate senior and junior high schools to be scheduled on the 6-period day.

The few schools which have 10 or 12 periods a day are those which have enrollments so large that all pupils cannot be accommodated at one time. They stagger the load, the individual pupil being in school for only 5 or 6 periods.

The length of periods. The widespread acceptance of the Carnegie unit as a standard in secondary schools was doubtless the main reason for the universal establishment of the 40-minute or 45-minute period. The agitation for a longer period, which began a quarter century ago, grew out of dissatisfaction with the marked tendency to use the class hour exclusively for oral examination on lessons prepared outside of class. The prevailing technique of teaching seemed at variance with the emerging conceptions of the educative process. Exponents of the point of view that learning occurs through self-activity urged that the teacher must guide the learner's activity into fruitful channels instead of merely assigning and hearing lessons. The new technique entailed a longer period. Other advocates of the change were those who felt that the pupil could study best under the supervision of the one who assigned the lesson; they were critical of the benefits of home study, considering the inadequacy of many homes for such activity. In view of this change in thought, what is present practice?

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[1] J. M. Hughes and Harry H. Herron, "Scheduling Practices in Four-Year High Schools," *School Review*, XLV (September, 1937), p. 519, Table 2 (adapted).

[2] J. M. Hughes and Harry H. Herron. Unpublished data.

[3] B. Lamar Johnson, "Registration and Schedule Making," Part II of A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *The Program of Studies*, Monograph No. 19, p. 324, Table 27. United States Office of Education, Bulletin No. 17, 1932.

The length of class periods, as found in the Hughes and Herron survey,[1] is depicted in Figure 19. While the percentages for all schools show that two thirds of the schools adhere to the period of traditional length, a more detailed examination of the data shows that more than half of the schools enrolling from 600 to 2000 pupils have periods of 50 minutes and longer. Schools having enrollments of fewer than 300 are overwhelmingly committed to periods of 40–45 minutes; and because of the large number of schools in that category, the totals are decidedly affected.

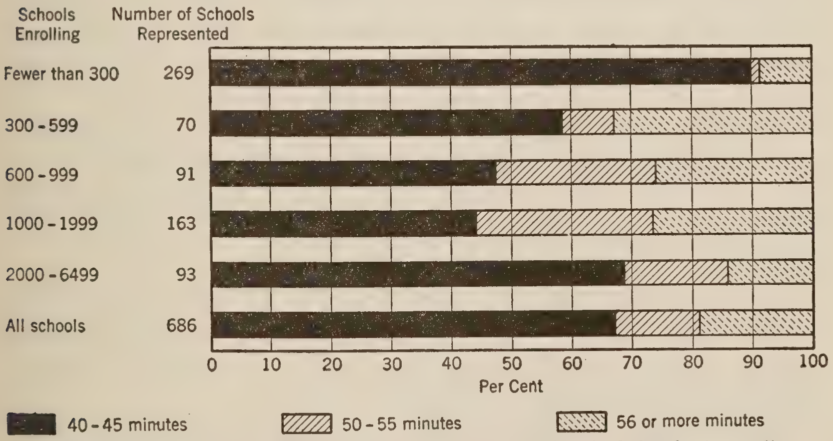

FIGURE 19. Percentage Distributions of Four-year High Schools According to Length of Class Periods

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[1] "Scheduling Practices in Four-Year High Schools," *School Review*, XLV (September, 1937), p. 520, Table 3 (adapted).

There is a trend toward the longer period. Hotz [1] found that among schools of the North Central Association, the percentage of schools operating on schedules with class periods of 55 or more minutes increased from 24 in 1924 to 38 in 1934–35. In Johnson's study, as given in the National Survey,[2] he found the 50-minute period to be decidedly modal in the junior high school and the 55-minute period in the senior high school; but in the four-year high schools, the average length of the class period in minutes was 45.9. The data of all these studies point to the conservatism of the four-year high school, especially the small school.

In evaluation of the length of the period and the number of periods per day, little evidence can be offered. Clem and Klyver, in a study of six-year secondary schools, reported [3] the opinion of 48 principals, 29 superintendents, and 29 professors of secondary education as favoring the 6-period day and the 60-minute period.

Johnson, in the National Survey,[4] sought to determine the actual length of the pupil's day in high schools having short and long periods.

> To this end, 8453 pupils in six senior high schools (two with short periods, 40 and 41 minutes in length, and four with long periods, from 57 to 75 minutes long) were asked to indicate the subjects they take and the amount of time they spent in studying each subject at school and at home the day before making the report.

Figure 20 presents a summary of the data thus gathered, making it evident, as the author says, that "In schools with short periods, pupils spend less time in class, more time in study at school, and more time in study at home than do pupils in schools with long periods." The total working day of these pupils from the two types of schools averages about 6 hours 40 minutes, and the averages for the two groups are less than 5 minutes apart. Evidently the long periods do not make the pupil's working day longer. In interpreting these data it must be borne in mind that only 6 schools are represented.

The decision as to length of class period may be further aided by the experimental study of Denman and Kirby.[5] These authors paired

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[1] H. G. Hotz, "Trends in the Development of Secondary Schools," *North Central Association Quarterly*, X (January, 1936), 290.

[2] *Op. cit.*, p. 323, Table 26.

[3] Orlie M. Clem and Richard Klyver, "Administrative Practices in Six-Year Secondary Schools," *School Review*, XLII (April, 1934), 295.

[4] *Op. cit.*, pp. 332–334.

[5] George E. Denman and Thomas J. Kirby, "The Length of the Period and Pupil Achievement in High School," *School Review*, XLI (April, 1933), 284–289.

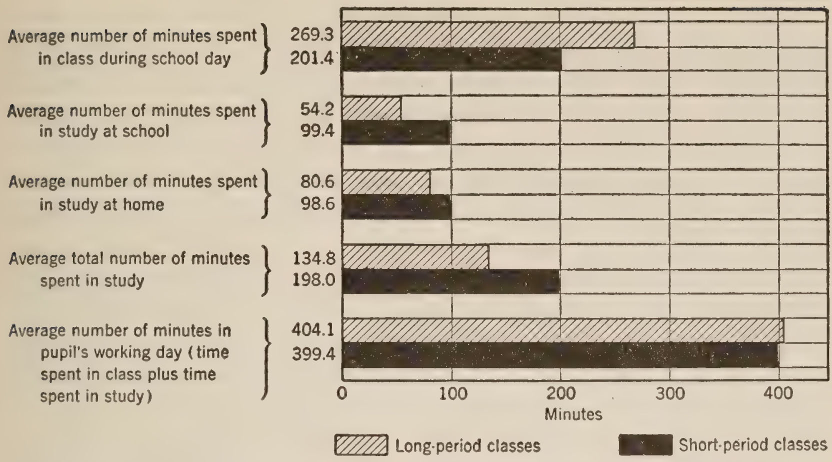

FIGURE 20. Pupils' Working Day in 2 Short-period Schools (4888 Pupils) and 4 Long-period Schools (3565 Pupils)

16 Iowa schools having class periods 55 to 65 minutes in length with 16 schools having periods 40 to 45 minutes in length. All the schools participated in the Iowa Academic Meet, in which objective tests are given under the direction of the University of Iowa. By finding the average scores earned by each of the groups of schools in subjects which are required or rather generally elected, the authors were able to make a comparison which serves as an evaluation of long and short periods. Because of incomplete reports in a few instances, the full number of schools could not be used in all subjects. The comparison is shown in Table 35.[1]

TABLE 35

SUMMARY OF STATISTICAL DATA SECURED FROM TESTS GIVEN PUPILS IN IOWA HIGH SCHOOLS USING LONG AND SHORT PERIODS

SUBJECT	NUMBER OF PUPILS		AVERAGE SCORE		DIFFERENCE IN AVERAGES
	Long Periods	Short Periods	Long Periods	Short Periods	
Algebra	1215	1242	37.7	32.3	5.4
American government	754	723	84.5	77.2	7.3
American literature	868	901	98.9	87.0	11.9
English literature	828	514	98.1	90.0	8.1
General science	512	550	53.8	52.3	1.5
Physics	599	600	37.4	36.9	0.5
Plane geometry	1071	1104	16.1	12.1	4.0
United States history	778	902	56.7	51.7	5.0
World history	764	929	48.0	46.6	1.4

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[1] *Ibid.*, p. 288, Table II (adapted).

The data given show consistent differences in favor of the long-period classes, and the authors reported the differences to be statistically significant in 6 of the 9 subjects. The subject in which the difference is smallest—physics—is one in which the total class time was not much greater in the long-period group than in the short-period group "because some schools using long periods gave only five periods a week to physics, while schools having shorter periods gave the customary seven periods to provide for laboratory work." [1]

The length of period may be evaluated from one other standpoint, namely, that of convenience in schedule making. As may be inferred from the preceding paragraph, schools organized on the basis of the 40-minute or the 45-minute period schedule laboratory subjects like the sciences, industrial arts, and home economics for double periods on some or all days of the week. On the other hand, when periods are 60 minutes in length, usually no subjects are scheduled for double periods. The significance of this difference, from the angle here considered, is well indicated by Puckett's conclusion, after experimenting with the schedules of ten high schools, that the requirement of double periods for some subjects constitutes one of "the two most outstanding factors resulting in difficulties in schedule making." [2]

The time of opening and closing school. Unpublished data of the Hughes and Herron study are in close agreement with those reported by Johnson in the National Survey,[3] as regards the time of opening and closing school. The median time of opening is about 8.30, and of closing, between 3.30 and 3.45. Both surveys showed a tendency for small schools to open later and close later than large schools.

Two activities connected with the opening and the dismissal of school, which must be taken care of in the daily schedule, are determining how early pupils may report to school in the morning and how long they may remain after school is dismissed. It was found by Running [4] that the mean time elapsing between admitting pupils and beginning classes was 40 minutes. Five o'clock was the median and modal time set for closing the doors in the afternoon, leaving, on the average, 1½ hours for pupils to remain after dismissal.

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[1] *Ibid.*, p. 289.

[2] Roswell C. Puckett, "The Difficulties of Making a High School Schedule of Recitations," *Doctoral Theses in Education*, II, University of Iowa Studies in Education, Vol. IX, p. 55. Iowa City, Iowa: State University of Iowa, 1934.

[3] *Op. cit.*, pp. 329–330.

[4] J. E. Running, "The Daily Program of the High School," *The American School Board Journal*, LXXV (October, 1927), 45–47, 136.

Community conditions and traditions will be the influential factors governing the hours of opening and closing school. The principal must weigh all pertinent elements in the situation, and, if he deems changes advisable, he must educate pupils, teachers, and patrons to his point of view.

Time for lunch and for intermission between periods. It was found in the National Survey [1] that the periods for lunch ranged in length from 10 minutes to 2 hours, with the averages for schools of different size ranging downward from the approximate 60 minutes for schools enrolling fewer than 300 pupils to 35 minutes for schools enrolling more than 2000. This inverse relationship is no doubt explained by the fact that in small communities most pupils go home to lunch; in cities, they take lunch at school. The size of the school lunchroom and the number of pupils to be accommodated are conditions that frequently have a bearing on the making of the school schedules. The schools that need two lunch periods must usually have half the pupils in class while the other half lunches. Schools which need three lunch periods commonly arrange them in three consecutive half hours with one third of the pupils in class the first two lunch periods, a second third in class the first and third lunch periods, and the remaining third in class the second and third lunch periods.[2] The scheduling of lunch periods must be worked out for every school in the light of such factors as have been referred to, but the health of the pupils must be a dominant consideration.

As to intermission between classes, both the National Survey [3] and the study by Hughes and Herron [4] were agreed in finding large numbers of schools allowing 2, 3, 4, or 5 minutes, with considerable correlation between size of school and length of intermission. Both studies reported finding a number of small schools which have no intermission. The size of the building and the contiguity of the classrooms of the individual pupil undoubtedly are and should be the main factors which govern decisions regarding this element of the school day.

Provision for home room, for assemblies, and for activities. One of the problems of scheduling which has developed in recent years is the provision of time for clubs and other extracurriculum activities, for auditorium programs, and for home-room programs. In analyzing trends in the program of studies, the National Survey found that these "social-integrative activities" have increased notably, especially in the junior high school.[1] Hughes and Herron, in their canvass of practice in four-year high schools, found that the holding of general assemblies was well-nigh universal, that the time of holding assemblies varied extremely, and that in approximately half the schools the assemblies were held during periods ordinarily devoted to regular classroom work.[2] For this infringement various adjustments were made, the most common being the shortening of all periods of the day.

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[1] Johnson, *op. cit.*, pp. 318–319.

[2] Other practices involving alternation of lunch periods with home-room or activity periods are reported in Chapter XIII in the treatment of space provisions for the school cafeteria.

[3] *Ibid.*, pp. 325–326.

[4] Unpublished data.

This survey also found the home room to be a unit of organization in 431 of 691 schools reporting, with the pupils meeting in the home room every day in the week in 302 of the schools. "In those schools in which home rooms were not in session every day, no general tendency in scheduling could be found." Of the schools in which home-room sessions were held daily, the median length of the period was 21.5 minutes, but practice varied so widely as to lead the authors to the conclusion that home-room activities must also have varied widely.[3]

An increasingly common method of scheduling all these "social-integrative activities" is by the institution of a daily "activities period." Such an arrangement has the advantage of regularizing the schedule by placing in one period of the day events which would otherwise be disruptive because they occur only one or two periods a week. Administrators may well examine closely the possibilities of such a solution.

PRELIMINARY REGISTRATION OF PUPILS

Essentially a guidance function. As stated in the second principle of schedule making (page 287), the schedule of the school must be derived from the pupil's choices of subjects. Subject choosing should be done under guidance. If the school's guidance program is to contribute to school efficiency at any point, it will surely be in the matching of pupils with the varied educational opportunities which the modern high school offers. While Chapter VI describes the guidance program as a whole, this section describes certain guidance procedures and assumes the existence of some elements of a guidance program.

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[1] Leonard V. Koos, *Summary*, pp. 166, 170. National Survey of Secondary Education, Monograph No. 1. United States Office of Education, Bulletin No. 17, 1932.

[2] *School Review*, XLV (September, 1937), 522.

[3] Practices in scheduling extracurriculum activities are discussed at some length in Chapter V.

The registration of subject choices must be carried on by members of the staff who are truly aware of the methods and the goals of guidance. In small schools, this office is likely to be discharged by the principal. In larger schools special functionaries, such as counselors, deans, or assistant principals, frequently perform it. In many schools the rank and file of teachers, in their capacity as home-room teachers, are charged with this responsibility.[1] Regardless of who carries on this work, it cannot be done by simply meeting pupils in groups of class size or larger, explaining to them what the rules governing the program of studies require them to take and permit them to elect, and then giving them registration cards with the injunction to list their subjects for the next semester, get their parents' signatures, and return the cards the next day. This negative statement is made because, by common observation, registration is too frequently carried on in just such a superficial, perfunctory manner.

Registration is an individual matter. Each pupil must have individual advisement. Focussed on this important function will be the whole capital of the school's acquaintanceship with the pupil, gained through the record of his past achievements, his interests, his environment, and his objectively measured abilities. In preparation for intelligent choice at registration time, the school, furthermore, will issue bulletins of helpful information, promote home-room presentations and discussions on vital issues of curricular choice, and utilize the library to disseminate knowledge of vocational and educational opportunity. Quite clearly, the act of preliminary registration must not be thought of apart from the long-term process of guidance which prepares for it.

Time of preliminary registration. However significant for schedule making this guidance function may seem to be, not all schools recognize it. In the National Survey Johnson found that 23 of 179 schools do not hold preliminary registration before school opens in the fall.[2] Seventeen of the 23 schools enrolled fewer than 300 pupils. It must be assumed that in those schools the school schedule was prepared simply on the principals' estimates of enrollment in the various subjects, and that the pupils participated only in final registration, selecting subjects as the schedule permitted. Table 36 gives the distribution for the majority of the schools, according to the time they reported holding preliminary registration.[1] It shows that small schools in general do not hold preliminary registration so early as do the larger ones. These distinctions no doubt are in large part due to the probability that the difficulty of schedule making varies directly with the enrollment and the breadth of the school offering.

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[1] See P. W. Hutson and M. G. Wilson, "Practice in Curricular Guidance," *School Review*, XXXVIII (December, 1930), 751, Table I, showing that major responsibility for curricular guidance rests with the home-room teacher in 49.4 per cent and with the principal in 25.9 per cent of schools enrolling 1000 or more pupils. In schools with enrollments of 500–999, the home-room teacher bears major responsibility in 23.5 per cent and the principal in 66.7 per cent of the schools.

[2] *Op. cit.*, p. 287, Table 2.

TABLE 36

Time Preliminary Registration for the Fall Term Is Held in Schools Classified According to Enrollment Groups

Time	Enrollment		
	300 or fewer (49)	More than 300 (107)	Total (156)
During the week before school opens	13	7	20
During the last week of school in June	28	54	82
2 weeks before the close of school in June	2	7	9
3 weeks before the close of school in June	—	8	8
4 weeks before the close of school in June	3	9	12
5 weeks before the close of school in June	—	3	3
6 weeks before the close of school in June	1	10	11
7 weeks before the close of school in June	—	1	1
8 weeks before the close of school in June	1	4	5
9 weeks before the close of school in June	—	3	3
10 weeks before the close of school in June	—	1	1
Time of preliminary registration not given	1	—	1

As to selection of subjects for the second semester, Johnson reported:[2]

> Forty-nine of the ninety-one schools having preliminary registration before the opening of the second term of the school year report that this registration takes place during the last week of the first term. Fifteen schools have their preliminary registration six or more weeks before the close of the first term.

The best practice would seem to demand that preliminary registration be held well in advance of the beginning of the term for which the schedule is to be made.

Registering entering pupils. 1. *Pupils entering junior high schools from six-year elementary schools.*—New pupils who must be registered in our secondary schools present a variety of problems and are therefore classified for this discussion. The first category is a group whose numbers are increasing with the spread of the movement for reorganization—those who are entering the junior high school. The preliminary registration of these pupils is relatively simple by virtue of the general practice of administering an undifferentiated program in the seventh grade. There are no choices of subjects to be made, and in most states compulsory education laws give pupils no choice in the matter of continuing their education. Accordingly, pupils and parents need not be consulted. The junior-high-school principal, however, must get in touch with the elementary-school principals in order to obtain as accurate a statement as possible of the number of pupils for whom he must plan. He must know the numbers of each sex, because the sexes are segregated for some subjects in the seventh grade. For each pupil he will need the data to be found in a good cumulative record folder, because it is on the basis of school marks, achievement-test scores, intelligence quotient, chronological age, and similar evidence that the pupil can be assigned to a section which corresponds to his ability. If the principal would sectionize the class for all subjects on a common basis and then schedule them by sections instead of by individuals—a widely used practice which is hardly defensible—he needs the above-mentioned data to determine the section for each pupil. If he would organize the class on a sounder basis for instruction and plan to carry on individual scheduling, he also needs these data. The number of sections needed for pupils of high, average, and low ability for each subject in which ability grouping is carried on can be determined only by study of the individuals for whom the schedule is to be made.

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[1] *Ibid.*, p. 289, Table 3.

[2] *Ibid.*, p. 288.

2. *Pupils entering four-year high schools from eight-year elementary schools.*—In taking up the registration of this group, a familiar and troublesome problem of school articulation is encountered—a problem so severe that the reorganization of American school units has seemed to be the best way to meet it. Since the majority of school systems, however, are still organized on the 8–4 basis, the program of preliminary registration for the high school is a crucial matter; insofar as possible it bridges the gap between elementary and secondary education.

Because in some states completion of Grade VIII satisfies requirements of the compulsory-school-attendance law, a carefully conducted preliminary registration is especially needed in order to know how many pupils and which ones will constitute Grade IX. Because, also, Grade IX so commonly marks the beginning of differentiated education, particularly in 8–4 school systems, preliminary registration is the means of distributing pupils to the various curriculums or elective subjects. Determining the number of class sections to organize and checking the number of teachers needed are essential steps in school organization which must await the careful canvass of the classes in Grade VIII from which Grade IX will be recruited.

The simplest situation in which this registration must be performed is that of the city high school, large or small, which receives its pupils from one or more elementary schools that are within the same school district and under the same general supervisory officer as the high school. It is not difficult under such conditions to establish close co-operation. The principal of the high school or the high-school counselor (or both, at different times) visits the contributing elementary schools by arrangement with their principals, meets the classes in Grade VIII, and talks to them about the opportunities and requirements of the high-school program of studies. He makes available to every pupil a copy of the program of studies, which can be taken home by the child to serve as the basis for consultation with his parents. If the school issues any other publications descriptive of its opportunities, this is the occasion of their greatest value. Finally, he leaves with the elementary-school principal a sufficient supply of preliminary registration blanks for all the pupils in Grade VIII.

Filling out the blanks is the final step in a guidance program of which the small part described above is played by the high-school principal or his representative. Primarily, the pupil is prepared for the act of registration by his elementary-school teachers and principal. They carry on an organized program of educational and vocational information, of pupil measurement and analysis, and of individual counsel.[1] They are in the best position to ease the transition of the pupil.

3. *Pupils entering the senior high school from junior high schools.*—Preliminary registration of this group may best be presented by quotation from the outline of practice in Berkeley, California:[2]

> 1. The counselor [of the junior high school] studies the cumulative card or data sheet and the case history of every pupil. . . .
>
> 2. A conference is held between the counselors of the junior and senior high schools for a careful study of the problems and opportunities in each school.
>
> 3. The pupil's program for the first term in the senior high school is made out. This involves:
>
> (a) A careful study by every prospective student and his parents of the bulletin, "What the Senior High School Has to Offer." . . .
>
> (b) Development, with the entire group and with each individual pupil looking forward to entrance into the senior high school, of the question, "Considering my interests, ability, and social and civic outlook for life, what should be my future educational plans?

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[1] See Chapter VI.

[2] Margaret M. Alltucker, "A Counseling Plan for Bridging the Gap between the Junior and Senior High Schools," *School Review*, XXXII (January, 1924), 61–63.

(c) A conference between the pupil and his parents with reference to high-school courses as explained in the bulletin. This may be supplemented by a general meeting of the parents . . . with the director of research and guidance and the senior-high-school counselor . . .

(d) The pupil's selection of the program in which he is most interested and which he thinks will best fit his needs and capacity.

(e) A conference between the counselor and the pupil with reference to the subjects chosen . . .

(f) A revision of the program by the pupil and his parents in the light of of any suggestions brought out in conference with the counselor.

(g) A second conference between the counselor and the pupil for final decision with regard to the program. The final choice of subjects is recorded on the "Introduction Card," which becomes the child's admission card to the senior high school . . .

(h) The signature of the parent on the back of the introduction card. This indicates the parent's approval of the course chosen.

(i) The signature of the junior-high-school counselor on the introduction card.

The introduction cards are sent to the senior high school several weeks before the close of the term previous to the students' entrance. The senior-high-school counselor makes a careful tally of each one and in this way determines exactly the number of sections in each subject to provide for the ensuing term.

4. *Pupils entering the school from outside districts or from schools otherwise under outside control.*—Included in this category are the pupils who come from one-room rural schools, from consolidated rural elementary schools, from parochial schools, and from elementary schools in communities where the high school is under separate control, as in the case of township and county high schools. In all these situations preliminary registration is difficult. The division in control of elementary and secondary education increases the gap that must be bridged. That preliminary registration is frequently poorly performed or not performed at all in such circumstances is suggested by the common expressions of surprise at the number of entering pupils who present themselves at the secondary school on the first day of the school year.

Suggestive of good practice is the following description of the procedure of the Thornton Township High School of Harvey, Illinois:[1]

Preadmission guidance. Three visits are made to the elementary schools while pupils are nearing the completion of the work of the eighth grade. The first visit is made by the principal of the high school, who talks to the pupils on the values of a high-school education and on the various curriculums offered in the high school. This visit is primarily to acquaint the prospective pupils with the principal of the school and with the general plan of organization of the high school. The second visit is made by the director of guidance. At this time a number of tests are given for the purpose of securing information concerning the aptitude and achievement of the pupils. The results of these tests are used in grouping pupils in the courses in English and mathematics in the freshman year. The results of the tests are also used for diagnosing the difficulties of individuals in need of adjustment, as well as for general guidance and counseling. The third visit to the elementary pupils is made by the director of guidance serving in his capacity as freshman-class principal. At this time the programs are made out for those pupils who are definitely planning to enter the high school.

---

[1] William C. Reavis, *Programs of Guidance*, p. 122. National Survey of Secondary Education, Monograph No. 14. United States Office of Education, Bulletin No. 17, 1932.

A similar program is carried out by the Joliet (Illinois) Township High School among its contributing elementary schools, with the result that "seldom do the changes in elections by a given class amount to more than 2 per cent of the choices made." [1]

Registering pupils already enrolled in the school. The registration of upper-class pupils who are already in the school is simplified to the extent that the severe problems of achieving interschool co-operation which have just been described are nonexistent. The guidance program must be correlated closely with registration and differentiated according to the grade for which pupils are to be registered. Because the rank and file of teachers, in their capacity as home-room teachers, are so often charged with responsibility for this function, they should be given specific mimeographed directions for the program of group guidance, for individual counseling, and for the clerical details of registration. The difficulty of obtaining accurate registration data when they are gathered by a number of persons is such that detailed instructions will be needed if the registration cards are to be completely and dependably filled out and returned to the office by an announced date. As an example of the specificity of these instructions, note the following partial list of directions which might be given for the final checking of the cards:

1. The teacher in charge of registration should check each card before turning it over to the principal to see that:
    (a) Each pupil has a card either filled out or marked "not returning next year." In the latter case, the pupil's plans should be included under "Remarks."

---

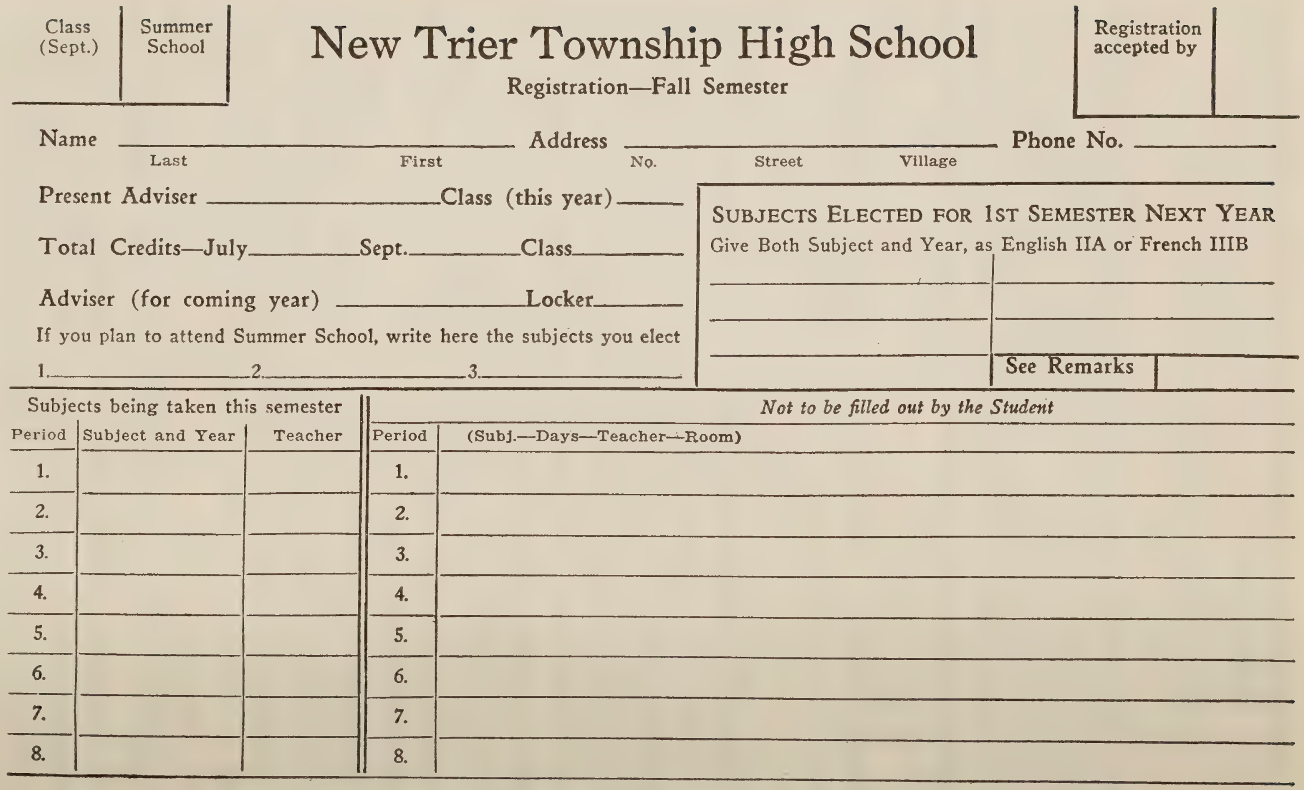
[1] *Op. cit.*, p. 106.

(b) Each subject is properly numbered; for example, English 9b, Physics 12b.
(c) Requirements for graduation are being fulfilled.
(d) The pupil has signed the card.

Figures 21A and 21B (pages 310 and 311) reproduce the registration card used in one high school for both old and new pupils.

The obtaining of accurate registration data for making the first-semester schedule has an additional complication in those systems which have summer schools. The best-organized schools meet this problem by having a preliminary registration for summer school about two weeks before the preliminary registration for the first semester. From a list of courses which are to be offered in the summer, the pupils indicate their choices. The summer schedule is then made up from the courses in which the necessary minimum number of registrations are received; with the schedule before them, the pupils desiring to attend summer school make their final registration. In the New Trier Township High School, Winnetka, Illinois, this is accomplished by writing the names of the summer subjects in the proper spaces on the regular preliminary registration card. With summer registration in mind, the adviser helps the pupil to select his subjects for autumn, assuming that the subjects elected for summer school will be passed. At the opening of the summer session the registration cards of these pupils should be checked against the actual summer enrollment, in order to locate the individuals who may have changed their minds about summer attendance and to alter their fall registration accordingly. Such changes can be made without consultation with the pupil, as all the necessary data are available on the registration card.

The pupils who fail introduce another complication into registration. To meet that problem, a good practice seems to be to have classroom teachers, in the afternoon before the last day of regular classes, submit to the office the names of all pupils who have failed, listing for each pupil the name of the pupil's adviser, the subject in which the pupil failed, the cause of failure, and the teacher's recommendation about repeating the course. The failing pupil's registration card may then be taken from the files and returned, with the failure notice clipped to it, to the pupil's adviser, so that the registration may be readjusted before school closes for the summer vacation. Obviously, the smooth working of this last-minute procedure depends on clear-cut directions from the principal's office and a well-disciplined faculty.



Class (Sept.)	Summer School

New Trier Township High School

Registration—Fall Semester

Registration accepted by

Name ______________________ Address ______________________ Phone No. ________
Last First No. Street Village

Present Adviser ______________Class (this year)______

Total Credits—July________Sept.________Class________

Adviser (for coming year) ______________Locker________

If you plan to attend Summer School, write here the subjects you elect

1.____________2.____________3.____________

SUBJECTS ELECTED FOR 1ST SEMESTER NEXT YEAR

Give Both Subject and Year, as English IIA or French IIIB

See Remarks

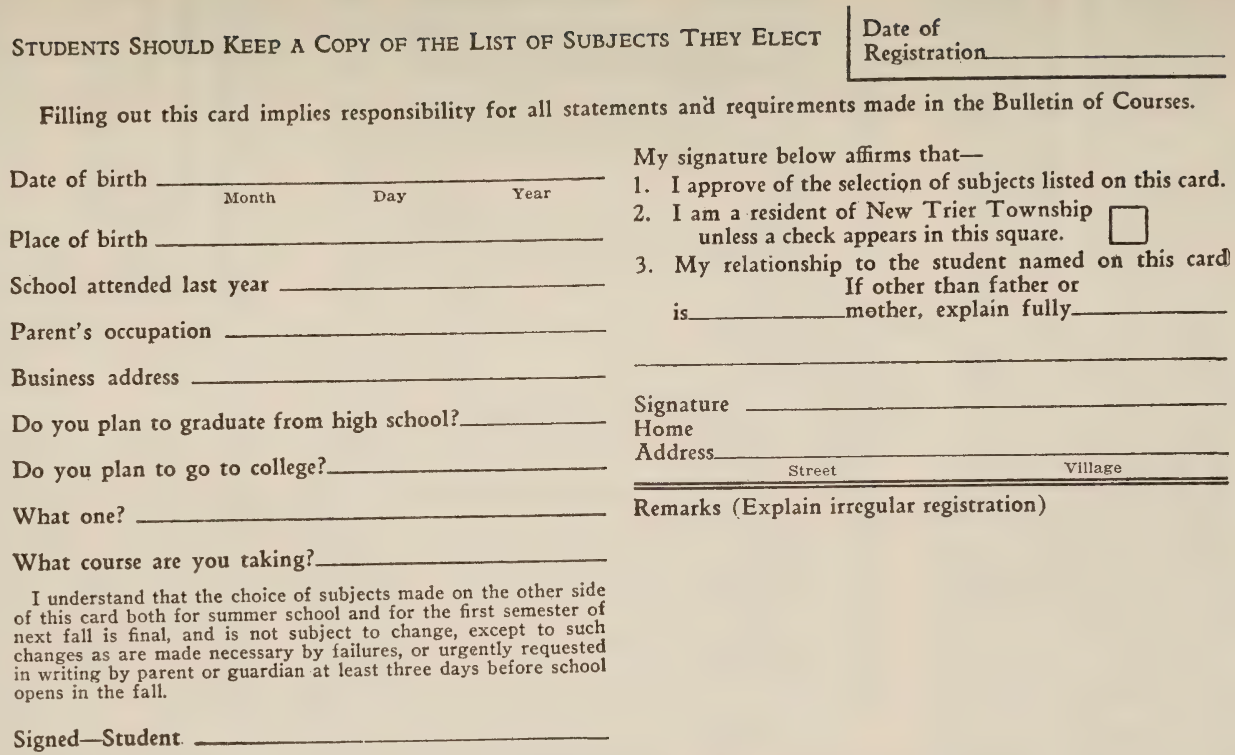
Subjects being taken this semester

Period	Subject and Year	Teacher
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Not to be filled out by the Student

Period	(Subj.—Days—Teacher—Room)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

FIGURE 21A. Example of a Registration Card



STUDENTS SHOULD KEEP A COPY OF THE LIST OF SUBJECTS THEY ELECT

Date of Registration ____________

Filling out this card implies responsibility for all statements and requirements made in the Bulletin of Courses.

Date of birth ____________
Month Day Year

Place of birth ____________

School attended last year ____________

Parent's occupation ____________

Business address ____________

Do you plan to graduate from high school? ____________

Do you plan to go to college? ____________

What one? ____________

What course are you taking? ____________

I understand that the choice of subjects made on the other side of this card both for summer school and for the first semester of next fall is final, and is not subject to change, except to such changes as are made necessary by failures, or urgently requested in writing by parent or guardian at least three days before school opens in the fall.

Signed—Student ____________

My signature below affirms that—

1. I approve of the selection of subjects listed on this card.
2. I am a resident of New Trier Township unless a check appears in this square. ☐
3. My relationship to the student named on this card is ____________ If other than father or mother, explain fully ____________

Signature ____________

Home Address ____________
Street Village

Remarks (Explain irregular registration)

FIGURE 21B. Reverse Side of Registration Card Shown in Figure 21A

Tabulating the registration data. From the registration blanks, the subject choices are tabulated, to serve as the basis for scheduling the classes. Care must be taken to make the count as accurate as possible and to record changes in the totals as late changes in registration occur. By comparing the registrations in previous years with the actual enollments which followed, some basis for prediction of actual enrollment in the classes to be scheduled may be found, and the number of sections can be planned accordingly. Data taken from the registration estimates in English of the New Trier Township High School illustrate the technique. They appear in Table 37.

TABLE 37

Predicted Enrollment in English, with the Data on Which the Prediction Was Based [1]

Class in English	Actual Enrollment, Oct. 1, 1934	Actual Enrollment, Oct. 1, 1935	Number of Sections, 1935	Registration, July, 1936	Increase or Decrease of Actual Enrollment in October over Registration as Tabulated Early in July			Probable Enrollment, Fall, 1936	Number of Sections Necessary, Fall, 1936	Average Size of Class
					1933	1934	1935			
IXA	333	351	14	296	70	69	60	360	14	26
IXB	75	109	3	158	0	−19	−1	150	5	30
XA	261	266	9	283	17	20	19	300	10	30
XB	74	76	3	90	9	−1	−7	85	3	28
XIA	178	206	6	233	−8	2	23	245	8	31
XIBn *	57	61	2	27	—	1	1	28	1	28
XIB	70	60	3	75	4	−2	−8	70	3	23
XIIA	122	143	5	158	24	9	23	177	6	29
XIIB	43	34	2	30	−2	1	−6	27	1	27
XIIay †	51	45	2	35	3	−3	12	40	2	20
XIIad †	17	—	—	11	0	−4	13	—	0	—
Totals....	1281	1351	49	1396	117	73	129	1482	53	28

* Sub-achievement groups in need of remedial work.
† Accelerates with special needs and requirements.

The accuracy of the estimations of enrollment in Table 37 is indicated by the data shown in Table 38. One may judge that it is rarely necessary, where this technique is employed, to add sections or to recombine class sections after the opening of the school. The use of this method enables the principal to make a more equitable distribution of the teachers' load and to reduce to a minimum the adjustments often connected with the beginning of the school year.

---

[1] The data and techniques of tables 37 and 38 were made available to the authors by W. L. Brown, Director of Reference and Research, New Trier Township High School, Winnetka, Illinois.

The number of class sections, as listed in Table 37, is easily determined after a standard of the size of section desired in each subject has been established. This standard, in turn, is determined in the light of local conditions, such as the number of teachers in a department, the number of rooms available, and the degree of financial support enjoyed.

MAKING THE SCHOOL SCHEDULE

Scheduling methods. So many local factors must be taken into account in the actual making of the schedule of classes for a given school that a detailed procedure that will be effective in any large number of schools can hardly be found. Writers on this phase of high-school administration have commonly stated that three basic methods of schedule making prevail—the block, the mosaic, and the combination of block and mosaic. In its inquiry among selected schools, the National Survey of Secondary Education learned from its 179 respondents that these methods were used with the following frequency: [2]

TABLE 38

ESTIMATES OF PROBABLE ENROLLMENT IN ENGLISH COMPARED WITH ACTUAL ENROLLMENT [1]

CLASS IN ENGLISH	ESTIMATE, JULY 1, 1936	ENROLLMENT, OCTOBER 9, 1936	ERROR IN ESTIMATE	PER CENT AND DIRECTION OF ERROR
IXA	360	351	–9	2.6
IXB	150	145	–5	3.4
XA	300	301	1	–0.3
XB	85	86	1	1.2
XIA	245	248	3	1.2
XIBn *	28	27	–1	3.7
XIB	70	73	3	4.1
XIIA	177	174	–3	1.7
XIIB	27	29	2	6.9
XIIay †	40	42	2	4.8
All English.......	1482	1476	–6	.4

* Sub-achievement groups in need of remedial work.
† Accelerates with special needs and requirements.

Mosaic	88
Combination	23
Block	7
No reply	61

The figures indicate that the block system alone has not been widely practicable—a state which conjecture may attribute to the wide variety of subject combinations to be found in the programs of many high-school pupils. The block system can be used only insofar as given subject combinations are carried by large numbers of pupils. The principals who signified their use of a combination of block and mosaic in all likelihood set up blocks to the extent that they could and then employed the mosaic method to finish the schedule.

---

[1] See note with Table 37.

[2] B. Lamar Johnson, *op. cit.*, p. 311, Table 19.

Steps in schedule making for a senior high school of 350 pupils. Foster [1] has described in greater practical detail than is possible here the procedure of schedule making in a medium-sized senior high school. The several steps recounted by him will be drawn on briefly as an example. They are as follows:

> Step 1. Prepare the layout for the schedule. This refers to an inventory of all the factors to be considered in making the schedule—the required and elective subjects of each grade and each curriculum, the numbers and types of rooms, with the capacity of each, the teachers and the tentative load in subjects and sections for each.
>
> Step 2. Prepare class-conflict cards, one for each class, including one for each laboratory, shop, or gymnasium class, as well as one for each section for any class divided into sections.

With these cards made out, the schedule maker scans the election cards of all pupils to find the irregular combinations, such as a second-year pupil taking a first-year subject. These irregularities are tallied on the conflict cards involved, and in this manner there is compiled the records of conflicts to be avoided or of adjustments to be made. Each card also is marked with the initials or name of the teacher who is to teach the class signified. Those cards designating subjects which, by virtue of curricular requirements, cannot conflict with a certain other subject or subjects of the same grade should be appropriately marked with a red pencil, so that the scheduler will be reminded of subjects which do not conflict.

> Step 3. Block the one-section classes . . . that conflict [in pupil elections] with other classes outside their own grade or year. That is, place each class in a block (the number of blocks will be the number of periods per day in the schedule) so that conflicts are eliminated, if necessary, by changing the enrollment of individual pupils.

To facilitate blocking, lay out, on a table, a vertical column for each period in the day. Starting with Grade XII and working toward grades XI and X, place in these columns or "blocks" the class-conflict cards, so that there are no conflicts in any block and so that no two cards bearing the same teacher initial or the same grade number in the title are placed in the same block. Also, a check should be made to see that a suitable room is available for each class.

---

[1] H. H. Foster, "Making the Class Schedule in the Smaller High School," *American School Board Journal*, LXXXV (July, 1932), 45–46, and (August, 1932), 41, 83.

One-section classes should be blocked in first, and, in general, nonconflicting classes of the same grade should be placed in the same block. Next, the two-section classes will be scheduled, placing together nonconflicting classes of the same grade but not two sections of the same class. Classes of three or more sections are scheduled last.

Step 4. Check the schedule by curricula, as well as by irregular enrollments.

For regular pupils, one may list all possible combinations for a given grade and then determine if the schedule makes all of them possible. Similarly, check the schedule for teaching loads and for classrooms.

A scheduling device especially helpful in detecting conflicts. While the use of a conflict chart has been advocated by two or more writers,[1] a device recently described by Karslake and Kirby [2] seems to be simpler and just as effective. The pupils' registration is recorded on the cards shown in Figure 22, page 316. With all the subjects printed on the card, gummed tabs are affixed to the card to identify the pupil's subject choices. When registration has been completed, the number of pupils taking each subject can be determined by counting the tabs. From the total for any given subject the number of sections needed can be determined according to the standards of the school. Assuming a tentative school schedule—perhaps the old schedule revised by the addition or subtraction of sections—the authors illustrate how actual conflicts may be located. Since the greatest likelihood of conflicts is in the single-section subjects, a list of those subjects may be made. The authors' directions then are as follows: [3]

> (a) List the single-section subjects. Suppose, for example, these are German I, German III, French III, Latin II, Caesar II, Cicero I, and Debate.
>
> (b) From the group of cards shown [in Figure 22] withdraw all cards of pupils who are taking German I by inserting the pick through those tabs opposite German I and gently lifting them out. All the cards withdrawn, then, are

---

[1] Roswell C. Puckett, "An Aid in Scheduling-Making," *The American School Board Journal*, XCI (August, 1935), 30.

Ralph D. McLeary, "Scientific Schedule Building for High Schools," *The American School Board Journal*, XCII (June, 1936), 42–43, and XCIII (July, 1936), 46, 72.

[2] James S. Karslake and Thomas J. Kirby, "Schedule-Making Made Easy," *School Review*, XLVI (December, 1938), 754–759.

[3] *Ibid.*, p. 757.

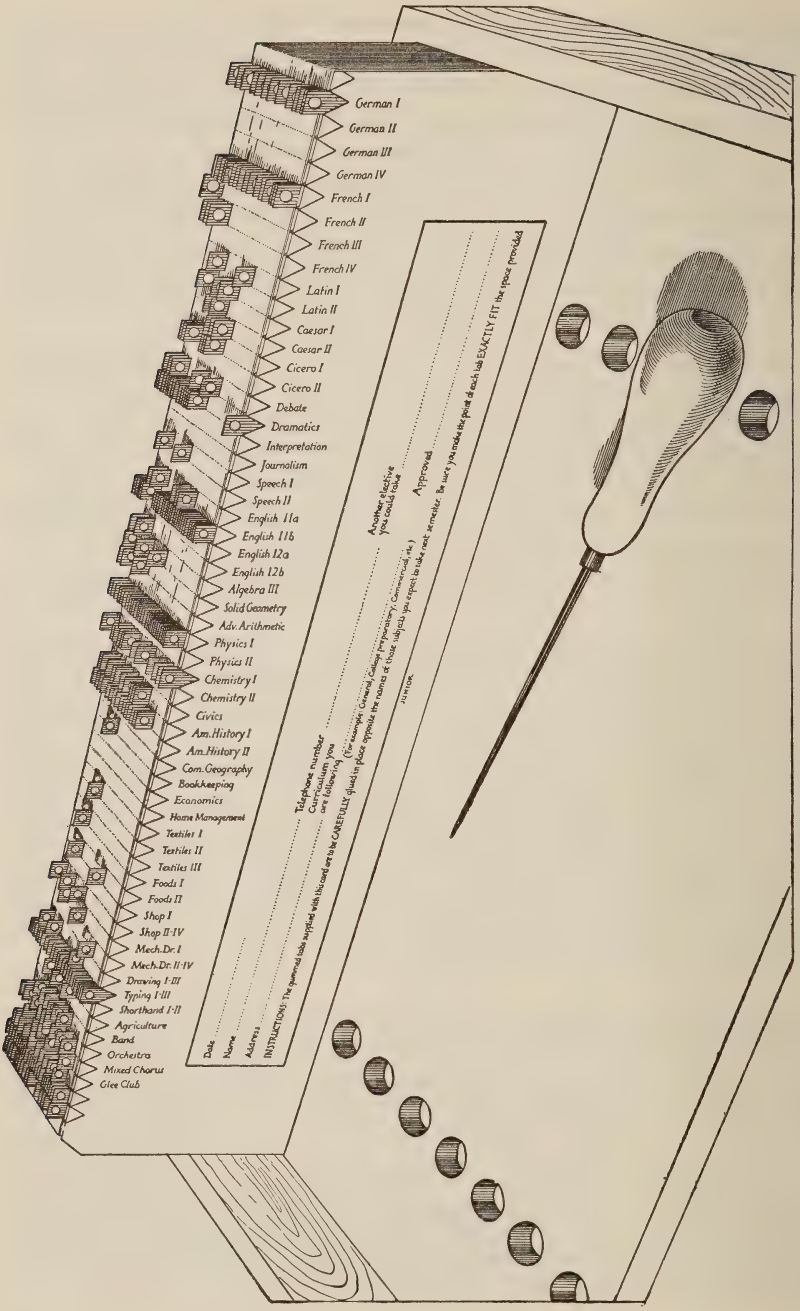


FIGURE 22. Schedule Cards for One Class

> those of pupils taking German I. If on this group of cards there are any tabs opposite German III, French III, Latin II, or any other single-section subject, a count of the number of tabs opposite any one of these subjects will give the number of *possible* conflicts between German I and the given conflicting single-section subject.
>
> (c) Suppose a glance at the cards indicates three possible conflicts between German I and French III. A further glance at the tentative schedule will quickly disclose whether German I and French III are scheduled for the same hour . . . In precisely the same way all the actual conflicts between every subject and every other subject . . . may be determined.

In schools with offerings too large to permit the printing of all subjects on one card, the authors suggest that there be a set of cards for each year-class, each set having a different identifying color and listing only those subjects available to pupils regularly enrolled for that year.

Complicating factors. Double-period classes, as pointed out in a previous section, enhance the problems of the schedule maker. He must see that they do not conflict with the other classes of two periods. Another complication is that caused by classes which meet less than five times a week. As may be deduced from data already given in this chapter, the number of such classes in some junior high schools is sufficient to make it necessary to have five schedules—one for each day of the week. A third problem which is peculiar to the progressive small high school is incident to the yearly alternation of subjects by which the curricular offering is expanded. When subjects such as physics and chemistry are offered in alternate years, the schedule maker must proceed with the individual pupil elections in mind.

Any method of ability grouping complicates the task of schedule making. If a class of 150 is taught English in five sections, it is obviously easier to schedule them if each pupil may be placed in any one of the five than if one section is for superior pupils, three are for average pupils, and one is for dull pupils. Junior high schools have widely accepted the principle of ability grouping, especially for grades VII and VIII. In many instances, however, they have applied the principle clumsily. Instead of establishing in the schedule sections for the bright, the average, and the slow in each subject, they have divided the pupils into sections on the basis of general ability and then kept each section identical for all or nearly all the subjects.[1] From Chapter VII it may be inferred that such a method of sectioning and scheduling may not constitute adequate recognition of individual differences.

---

[1] See *Wellesley School Survey*, pp. 60–63.

Because of the varied combinations in the programs of senior-high-school pupils, scheduling has seemed so complex as to preclude ability grouping. With the increasing imminence of universal secondary education, however, the administration of constant subjects without differentiation in the level of difficulty has become more and more indefensible. Therefore, such practice as the following is on the increase:

> . . . the entire English course at Central High School, a part of the science course, and the course in world history have been paralleled by modified courses suited to the capacities of pupils who cannot succeed in the regular work.[1]

Schedule making is rendered more difficult by such an innovation; but since the change seems fully justified, the school must meet the need. As regards all these complicating factors, a careful weighing of values is necessary. This chapter argues that some of the conditions which cause difficulty in scheduling are positively detrimental and should be removed; others are essential to educational efficiency and should be accepted.

MAKING THE PUPILS' SCHEDULES

Procedure in small and medium-sized schools. From the master schedule of the school, showing all classes or class sections as to subject, period, teacher, room, and group designation, the schedule of each pupil will be made. The chief problems which this task presents are the equalizing of class sections and the observance of the eighth principle stated at the beginning of this chapter: "The schedule should provide for such alternation of the activities of the pupil as will obviate fatigue and respect convenience." Meeting both these problems is clearly contributory to the attainment of efficiency in teaching and learning.

In small schools the pupils' schedules are typically made up by the principal; and even in schools enrolling a thousand pupils, the work is sometimes done by the principal or by a clerk and a teacher working under his close direction. Frequently the time chosen for this function is immediately after the close of school in June, or, if there is a summer session, between the end of the summer session and the opening of school in the fall. Schools which reorganize extensively for the second semester must put a sufficient staff at the work to accomplish it in a few hours. At any rate, the objective (as far as time is concerned) is to place in each pupil's hands his complete individual schedule not later than the beginning of the first day of the semester and to have class sections equalized as far as possible before the first class meetings.

---

[1] J. E. Marshall, "The St. Paul Program of Guidance," *School Review*, XLVI (May, 1938), 377.

While the average size of class sections in each subject is settled before determining the number of sections to be offered, the scheduler must know also the maximum number permitted to each section—a limit which is frequently determined by the capacity of the room in which the section is to meet. In order to be certain to respect the maxima as well as to equalize sections, a common practice is to tally the assignment of each pupil. Then when the maximum size is reached, the section is closed, and pupils not yet assigned can be placed only in the remaining sections. Naturally, the experienced scheduler will spread his assignments so as to have all sections of a given subject filling up at about the same rate and to keep all of them open as long as possible. By that procedure, the pupil whose elections are such as to limit him sharply as to the periods in which he can take a given subject will have the necessary section available to him when the scheduler comes to his registration card. It will be found desirable, also, in scheduling each pupil to begin with the subjects in which the smallest number of sections is available.

Simultaneously with the assignment of pupils to classes, a card may be made out for each pupil, showing his entire schedule. It is usual to make such cards in duplicate—one for the office and one for the pupil. By including on the card a few items of personal data, such as homeroom number or teacher and address, telephone number, and name of parents, the office has a convenient reference file of all pupils of the school so that contacts may be made quickly at any time of day.

Procedure in a large high school. An example of practice in a large high school is the description by Butterfield for a school of 3500: [1]

> 1. A box was made for each subject with as many pigeonholes in horizontal file as there are periods in the day and as many in vertical file as the greatest number of classes likely to be needed in the subject at any given period. The pigeonholes measure 1.5 x 3 x 4.5 inches. . . . The largest box, for English classes, contains 120 compartments with a total capacity of twelve classes to a period in a ten-period day.
>
> 2. Class cards for each subject and for study-hall assignments were printed. [See Figure 23, page 320.] . . .
>
> 3. A program envelope, measuring 4 x 6.5 inches, was provided for each pupil. [See Figure 24, page 321.] . . .

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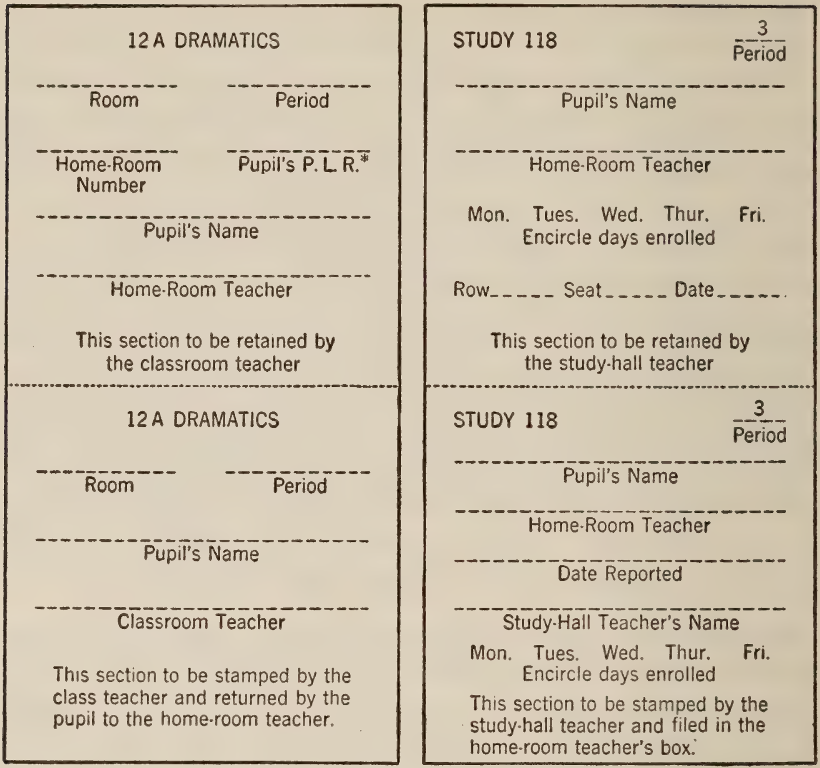
[1] E. E. Butterfield, "A Procedure for Assigning High-School Pupils to Classes," *School Review*, XLII (September, 1934), 532–539.



12 A DRAMATICS

---------- Room ---------- Period

---------- Home-Room Number ---------- Pupil's P. L. R.*

---------- Pupil's Name

---------- Home-Room Teacher

This section to be retained by the classroom teacher

12 A DRAMATICS

---------- Room ---------- Period

---------- Pupil's Name

---------- Classroom Teacher

This section to be stamped by the class teacher and returned by the pupil to the home-room teacher.

STUDY 118 3 Period

---------- Pupil's Name

---------- Home-Room Teacher

Mon. Tues. Wed. Thur. Fri.
Encircle days enrolled

Row_____ Seat_____ Date_____

This section to be retained by the study-hall teacher

STUDY 118 3 Period

---------- Pupil's Name

---------- Home-Room Teacher

---------- Date Reported

---------- Study-Hall Teacher's Name

Mon. Tues. Wed. Thur. Fri.
Encircle days enrolled

This section to be stamped by the study-hall teacher and filed in the home-room teacher's box.

FIGURE 23. Examples of Class Cards [1]

The order of filling in proposed subjects is most important but may vary with schools. Begin with the subject offering the smallest number of classes or with one that is especially difficult to assign because of double periods. Finish with the subject, such as English, which has the largest number of classes and is, therefore, easiest to schedule . . .

4. A smaller program envelope . . . to be carried by the pupil was provided. [See Figure 25, page 322.] . . .

5. A rubber stamp was provided for each subject, small enough to fit into the rectangles on the program envelope.

The procedure, then, in Butterfield's school, was to give a copy of the complete schedule to each department head. He labeled his pigeonhole box according to the schedule and put in each pigeonhole that was used the number of class cards corresponding to the number of pupils that would be admitted to the class. Each class card was properly marked with period and room numbers.

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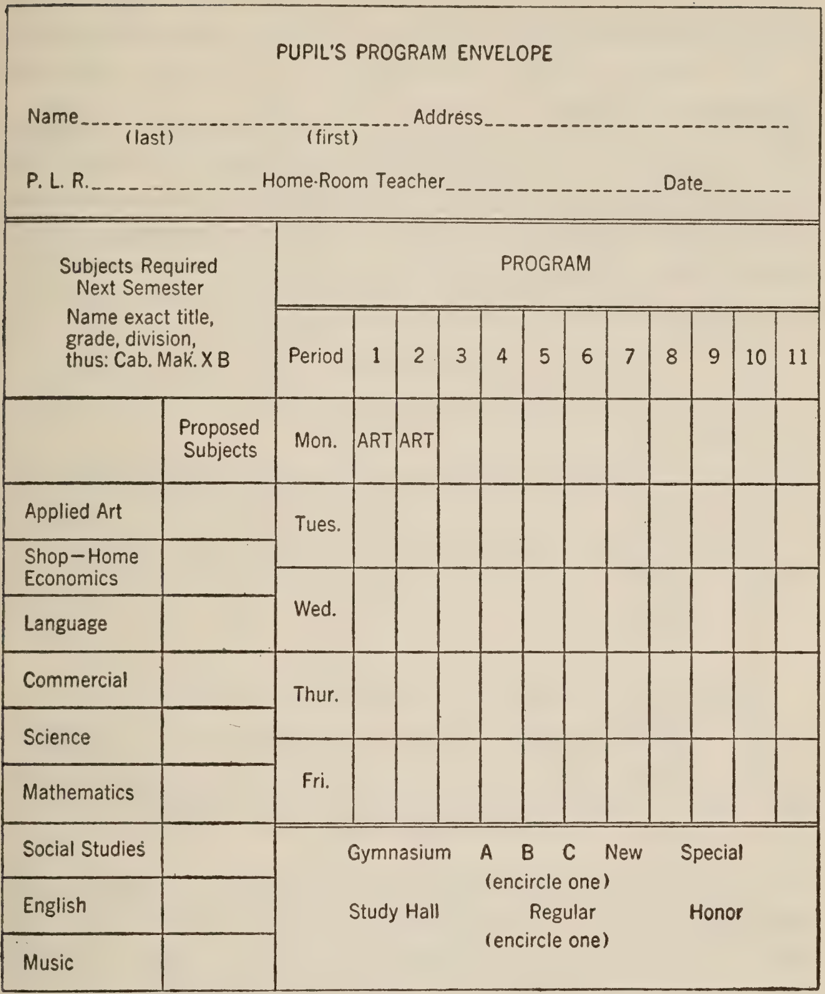
[1] From Butterfield.



PUPIL'S PROGRAM ENVELOPE

Name________________________________ Address___________________________
(last) (first)

P. L. R.______________ Home-Room Teacher_________________ Date_______

Subjects Required Next Semester Name exact title, grade, division, thus: Cab. Mak. X B	
	Proposed Subjects
Applied Art	
Shop—Home Economics	
Language	
Commercial	
Science	
Mathematics	
Social Studies	
English	
Music	

PROGRAM

Period	1	2	3	4	5	6	7	8	9	10	11
Mon.	ART	ART									
Tues.											
Wed.											
Thur.											
Fri.											

Gymnasium A B C New Special
(encircle one)

Study Hall Regular Honor
(encircle one)

FIGURE 24. Envelope Used for Assembling Pupils' Class Cards [1]

Each home-room teacher, or the pupils under his direction, handed in a large program envelope (shown as Figure 24) for each pupil who expected to enroll the following semester, and filled in the "proposed subjects." The envelopes from all home rooms were then assembled in a central place. They were sorted to bring together all envelopes requiring a class card in the first of the "proposed subjects," namely, applied art. To the head of the Art Department were taken the envelopes requiring an assignment in that subject. He assigned each pupil to a class section by putting a class card from his pigeonhole box into the program envelope and stamping "Art" on the envelope in the two periods assigned.

---

[1] From Butterfield.

As soon as art periods were assigned, the envelopes were returned to the office and were sorted again for shop and home economics, the heads of those departments making their assignments. In like manner, the procedure of sorting and assignment was carried on for one subject after another, following the order of the departments as named on the envelope. Finally, study halls were assigned.

SMALL PROGRAM ENVELOPE

Period	1	2	3	4	5	6	7	8	9	10
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										

FIGURE 25. An Envelope Serving the Pupil as a Program [1]

The program envelopes, containing the class cards, were given to the home-room teachers. On the opening morning of the semester, the teachers turned over to their pupils the class cards, together with the small envelopes which served as receptacles for the cards on the first day and as program guides thereafter. The large program envelopes were retained by the home-room teacher; in each was placed the properly stamped second sections of the pupil's class cards when he brought them back from his class teachers at the end of the first school session, the home-room teacher checking the stubs against the pupil's program.

An exception to this procedure was made in the case of one-section subjects, the office arranging to put them on pupils' schedules in advance of the routine scheduling. Space will not permit the recounting of other details which complete Butterfield's picture of how pupils were assigned to classes.

---

[1] From Butterfield.

Among the advantages claimed by Butterfield for his system are the prompt settling of classes and the consequent beginning of serious work at the very beginning of the semester. Furthermore, "Every program, made up by a half dozen or more persons, is impersonal, and the pupil generally accepts it as final. When home-room teachers made the programs from a master schedule, much pressure was brought to bear in favor of short or otherwise desirable programs. Under this plan no charge of favoritism can be maintained, as remote control is not easily affected by the whims of individual pupils." [1]

In connection with this last point, however, one is prompted to wonder if the "impersonal" building of a pupil's schedule by a "half dozen or more persons" is likely to result in respect for the pupil's convenience and ease of learning. In Butterfield's scheme there is no one to raise the question, "Is the whole schedule a good working schedule, and is it a good one for this particular pupil?" That is at least as important a principle as the equalization of classes.

STARTING THE SCHOOL ON THE SCHEDULE

The effectiveness of registration will be partly tested by the length of time required for the work of the school to get under way and by the amount of confusion manifest on the first day and in the first week. The best insurance of the smooth opening of the new semester's work is the careful carrying out of the procedures of advisement, registration, school scheduling, and pupil scheduling. Nevertheless, thoughtful planning of first-day direction of pupils and teachers is necessary if the whole school is to be started promptly on the schedule.

The administration of the opening day becomes largely a matter of routing. There must be a definite plan for meeting pupils at the doors and directing them to their first reporting places. In the small school all pupils may assemble in the auditorium; but in the school of medium or large enrollment, the pupils had best be distributed throughout the building at the outset. For example, entering pupils may be sent to the auditorium or the gymnasium, new upper-classmen to some large room, and previously enrolled pupils to their home rooms of the last semester.

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[1] *Ibid.*, p. 539.

Obviously, the members of the teaching and clerical staffs must be organized and schooled to play their respective parts in meeting and directing the pupils.

The principal object to be achieved in these first assemblies of pupils is to help them contact their home-room advisers, who have their schedules. This may be accomplished by lending to each pupil his registration card, on which he will find the name of his adviser or the designation of his home-room assignment. Then, as a common signal is sounded throughout the building, the pupils take their registration cards and go to their home rooms. If the school is organized on some type of permanent home-room basis, only pupils new to the school will have to make this move.

In the first home-room period, pupils receive their schedules from their advisers. On forms provided for them each makes a copy of his schedule or, as in the practice cited from Butterfield (page 322), the pupils are given a copy of their schedules, together with class cards for each class and study hall. The teacher takes the roll by counting as absent the pupils who do not call for their schedule cards. If the method of duplicate class cards, as described by Butterfield, is followed, the most accurate check on attendance at school and at each of the pupil's class and study-hall assignments is possible.

After pupils have received their schedules, the routine of the day begins. Usually the periods are shortened to fifteen or twenty minutes so as to complete the program by noon and leave the afternoon for attention to various irregularities and loose ends. There will be a few pupils coming into the school by transfer who have not previously made contact for advice, registration, and scheduling. There will be some pupils desiring to change their schedules, and their requests must be given thoughtful consideration. There will be, perhaps, an unforeseen necessity for dropping or adding a section. An adequate organization for meeting these problems on the afternoon of the first day must be planned in advance. This will involve designating personnel for each function, making sure of the presence of those pupils to whom advice is to be given or for whom adjustments are to be made, and devising plans for informing home-room and classroom teachers of changes in their groups. If the schedule is followed through in this manner, there will be no doubt in the minds of pupils, teachers, and parents, from the first day of the term, that school is a serious undertaking. Such an attitude is the principal's most cherished reward for long hours spent in planning the mechanical routine of the school.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. From a school in which short periods and separate study periods prevail, obtain the schedules of a number of pupils. Criticize them from the standpoint of the extent to which they "obviate fatigue and respect the convenience" of the pupil.
2. Canvass the junior high schools of your community or state to determine by grades the extent to which pupils are scheduled by groups rather than as individuals.
3. Discuss the bearing of ability grouping on schedule making, and consider just how the two functions may be carried on harmoniously in some school with which you are acquainted.
4. In a school which has double periods for some subjects, find out by interviewing the principal just how he proceeds with their scheduling.
5. In what ways should the registration and scheduling of junior-high-school pupils differ from that of senior-high-school pupils?
6. Canvass the steps in registration and schedule making which have been recounted in this chapter, and classify them as professional or clerical.
7. List the logical steps which should be followed in some high school of your acquaintance to register prospective entering pupils for the fall semester.
8. From schools of somewhat equal enrollment, make a collection of the forms used in registration and schedule making. Analyze these forms for frequency of various elements, and criticize them.
9. With the master schedule of some school of 500 to 1000 pupils before you, try to weigh the advantages and the disadvantages of using Butterfield's plan of assigning pupils to classes.
10. Printed descriptions of procedures on the first day of the term are practically nonexistent. Interview principals, however, and see if you can collect a number of these descriptions. Analyze them to determine the frequency of appearance of various features.

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Chapter IX

Selecting Teachers

TEACHER SELECTION INFLUENCED BY CERTIFYING, ACCREDITING, AND TRAINING INSTITUTIONS

Problems of the high-school staff. "To paraphrase a dictum of Locke's, the school that has good teachers needs little else, and the school that is without good teachers will be little better for anything else." [1] These words aptly state the significance of one of the largest problems of high-school administration; in the provision of teachers lies the opportunity and the responsibility for most profoundly affecting educational results. To a consideration of this problem and the closely related problems of staff management, this chapter and the three chapters next following are devoted. The present chapter deals with the selection and the rating of teachers; the two following treat of the teaching load and salaries, respectively; while the fourth is concerned with the administrative staff of the school.

The nature and scope of certification as an administrative device. A hundred years ago the certification of teachers was a function performed by the officers of the school district. The state now commonly exercises this prerogative; and by setting standards higher and higher, it has steadily risen in importance as a determinant of teacher selection.[2] In its detachment from those personal, pecuniary, and political influences which must always surround the actual employing situation, the state as a certifying agency is in a position to wield large influence. It limits the field of applicants who may be considered by the hiring authority. It assures the attainment of certain minimum qualifications. It establishes a degree of uniformity over a wide area.

Considerable divergence inevitably exists in the practice of the forty-eight states. In part, the variety of practice may be ascribed to differences in ability to support education and in conceptions of the importance of education. Beyond these factors, however, certification may be deemed only a follower of social progress in some states, whereas in other states it may be conceived as an instrument for the stimulation of educational advancement.

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[1] B. R. Buckingham, *The Supply and Demand in Teacher Training*, p. 3. The Ohio State University Studies, Vol. II, No. 15, 1926.

[2] Katherine M. Cook, *Laws and Regulations Governing Teachers' Certificates.* United States Bureau of Education, Bulletin No. 19, 1927.

Despite the variation, some requirements for certification are outstanding. For teachers of academic subjects most states now require graduation from a recognized four-year institution as the basic training necessary for the best certificate obtainable by a person without teaching experience. All but a few states stipulate the completion of professional education courses, the number of semester hours required ranging from 6 to 24. Teachers of the special subjects are required to possess "special" certificates. Not all states recognize the same subjects as "special," but in general the principle of specialized preparation is recognized for music, art, physical education, industrial arts, home economics, agriculture, and commerce. The modal amount of training, as reported in 1927,[1] is a two-year course; but there seems little doubt of a trend toward the requirement of four years of training for these teachers.

The requirement that academic teachers have specialized preparation in the subjects they teach has been adopted by approximately half the states, according to Kinder's survey in 1928.[2] As regards the assurance of this qualification in teachers, among the most advanced of the certification laws is that of Indiana. It requires the presentation by the candidate of the specified numbers of semester hours of college credit in any two of the following fourteen subject groups: [3]

I.	English	24
II.	Mathematics	21
III.	Latin	24
IV.	French	24
V.	German	24
VI.	Spanish	24
VII.	Social studies	36
	Second option (history)	24
	Third option (social science)	24

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[1] For detailed evidence on practices in certification, see P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, Chap. VI. The Macmillan Company, 1927.

[2] J. S. Kinder, "Requirements for Secondary-School Teaching Certificates in the Case of Persons without Teaching Experience," *School Review*, XXXVIII (February, 1930), 112–113.

[3] The items of this law which are here presented have been taken from *Teacher Training and License Law of 1923, and Regulations of the State Board of Education*, Education Bulletin No. 64. Indianapolis: State Superintendent of Public Instruction, 1923.

VIII.	Science	40
	Second option (biological science)	25
	Third option (physical science)	25
IX.	*Agriculture	20
X.	*Industrial arts	20
XI.	*Home economics	20
XII.	*Music and art	20
XIII.	*Physical education	20
XIV.	*Commercial subjects	20

*Good only for junior-high-school grades or small high schools where agriculture, home economics, and industrial arts are not regarded as vocational.

Note that only eight opportunities for specialization in academic subjects are afforded. The number of hours varies, thus testifying to the opinion of the framers of the law that the extent of specialized training desirable need not be the same for all the divisions of subject matter enumerated. The work to be taken in these subject groups is so defined by the state as to be the most direct preparation for high-school teaching.

Obviously such a law projects the state far—in some respects, perhaps, too far—into the more intricate problems of high-school administration. Not only does it set up important determinants in teacher selection, but it largely governs the assignment of the teacher's program of work. The justification of such a degree of control will be apparent after the presentation of certain facts of the existing preparation of teachers in a later section of this chapter and after a discussion of the problems of the teaching load, which is the subject of the next chapter.

The influence of regional associations on teacher selection. Grizzell [1] has summarized and compared the standards of the regional associations, classifying them under fourteen headings, of which "Qualifications of Teachers" is the one of interest here. His statement of contrasts affords also an adequate description: [2]

> Another significant difference in standards is the requirement in the Middle States and Southern Associations providing that three fourths of all teachers of academic subjects shall hold college degrees, while the North Central and Northwest Associations require all teachers to hold degrees. The North Central standard further specifies that teachers of academic subjects shall be assigned to teach in the field of their major or minor specialization. The standards con-

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[1] E. D. Grizzell, "A Comparison of Standards for Secondary Schools of Regional Associations," *School Life*, XIII (April, 1928), 147–149.

[2] *Ibid.*, p. 147.

cerning professional training of teachers of academic subjects are slightly different, the North Central and Northwest Associations requiring 15 semester hours, and the Southern Association, 12 semester hours.

The influence of such standards on the important administrative task of selecting teachers must depend largely on the degree to which membership in the association is prized. This varies with the associations. Unquestionably the North Central Association has for a number of years played a large part in determining the character of the secondary schools in its area of influence, which includes twenty states.

The influence of teacher-training institutions. In the establishment of standards for teachers, the agencies of certification and regional associations lean heavily on educational institutions of college and university grade. They define the preparation required of teachers in the college terminology of *degrees*, *hours*, *credits*, and *courses*. Statement of requirements in such terms places a large responsibility on teacher-training institutions in determining who shall become eligible to teach. In view of the known variation in the standards attained by higher institutions, even though they state the standards in identical language, it may be judged that requirements of certification still permit of wide latitude on the part of training agencies in defining their task.

A truly professional outlook would impel the training institution to analyze as fully as possible the positions for which it aims to prepare teachers and then to draw up and administer curriculums in terms of the findings of the analysis. Under such impulsion it would select its candidates for training according to their possession of the capacities and traits shown by the analysis to be necessary; it would note carefully the progress of the accepted candidates; and it would not graduate, or at least not certify, anyone who failed to acquire the qualifications essential to the successful filling of some type of position.

The alternative point of view is for the teacher-training institution to regard itself as a kind of factory, turning out a product which meets only the coarse legal specifications, hustling for orders, and placing teachers on the basis of competition with other training agencies. Such an outlook is too much one of responsibility to the teacher candidate rather than to the pupils who are to be taught.

The practices of teacher-training institutions. (1) *In selecting candidates.*—Refined studies of the practices of teacher-training institutions in selecting students have not been made, but it is common knowledge that such selection as is carried on is generally on the sole basis of scholarship and is not different from that which prevails for the maintenance of liberal-arts standards. This is true as regards both selection at admission and selection during the course of training. To a large degree the preparation of secondary-school teachers is dominated by the liberal-arts college. Hence it is easy to understand why the liberalizing and professional functions are not adequately distinguished.

A very important reason, it is true, why teacher-training institutions do not sift out their candidates on the basis of aptitude for, and ability in, teaching is our present inability to predict teaching success and our comparative inability to measure teaching merit. Researches bearing on the analysis of teaching are presented in a later division of this chapter, but it may be said at this point that as yet little progress has been made. It is incumbent primarily on the institutions, however, to continue research on this problem.

The importance of these policies of teacher-training institutions for the teacher-employing authority can hardly be overestimated. His responsibility is large at best; but when there is poured on him an ungraded flood of applicants who merely meet legal qualifications but have not otherwise been selected professionally, his problem is aggravated. It should be borne in mind that however earnestly and capably he may take up the task of selecting teachers, his opportunity to study an applicant and determine teaching fitness before offering a contract is small indeed compared with the opportunity the training agency has had. Furthermore, it is common knowledge that personal and political influences often enter into the hiring situation to prevent professional consideration. It is then that the extent to which training institutions have exercised the selective function counts most heavily.

(2) *In training candidates.*—Hutson analyzed the guidance in curriculum given to candidates for high-school teaching by small colleges having departments of education, by large universities having schools of education, and by teachers' colleges.[1] He found content training generally administered from the liberal-arts point of view (except in the case of the special subjects) and students permitted to major in Greek, geology, astronomy, philosophy, and psychology—fields which are obviously out of line with high-school teaching positions.

Evidence of some job analysis and an effort to train teachers to meet specifications is afforded in the curriculum of the University of Minnesota for the training of science teachers.[2] This curriculum involves approximately 20 semester hours of one science, 10 of a second science, and 6 of each of three other sciences—a total of 48 hours. The need for teachers trained in several sciences, and especially for general science, is thus recognized.

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[1] *Op. cit.*, Chap. V.

[2] The College of Education Announcement of Courses for the Years 1934–1936, *Bulletin of the University of Minnesota*, Vol. XXXVII, No. 40, September 4, 1934, p. 49.

Another example of relatively detailed curriculum guidance for secondary-school teaching positions is to be found in the catalogue of the University of Pittsburgh: [1]

> Students must offer from 24 to 32 credits in a major subject and a minimum of 18 credits in at least two minors.
>
> The major and minor subjects, outlined on the following pages, are defined with considerable exactness. The combinations and the content of the various majors and minors are based upon a careful study of teaching situations in western Pennsylvania. Certain major subjects require specific minors, while others permit selection within limitations.

Examples of the limitation of subject combinations are the following:

MAJORS	MINORS (Choose two)
Biological science	*Physical science*, mathematics, social science, history, geography
Chemistry	*Physics*, biological science, mathematics
History	*Social science*, English, mathematics, biological science, speech, geography, bookkeeping, stenographic
Latin	English, French, history, mathematics
Physical science	*Biological science*, mathematics, social science, history, geography
Physics	*Chemistry*, biological science, mathematics
Social science	*History*, English, mathematics, biological science, speech, geography, bookkeeping, stenographic

The italicized minors are required with the majors which they follow. The content of each major and minor is defined. The following are examples:

> *History Major.* History of the United States, 6 credits; courses from the fields of ancient, western European, and survey history, 12 credits; additional courses from United States or western European history, 6 credits; electives, 6 credits.
>
> *Social Science Minor.* Introductory economics, 6 credits; introductory political science, 6 credits; introductory sociology, 6 credits.

Such practice as is represented by these examples is uncommon at present. The university schools of education are giving their attention largely to the development and administration of courses in education. An appropriate goal for these institutions was indicated by Haggerty [1] in his remark that "a complete teacher-training program must provide as many specialized curricula as there are educational jobs that are fundamentally unique in character." When teachers are prepared in accordance with such an ideal, the task of teacher selection will be much simplified and therefore will be more ably performed.

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[1] School of Education, 1936–1937, *University of Pittsburgh Bulletin*, Vol. 32, No. 8, February 20, 1936, pp. 43–48.

Special attention to the training of junior-high-school teachers. To what extent the emergence of the junior high school has created a special problem in the training and selection of teachers is hard to say. A recent investigation shows that almost a fifth of a large number of junior-high-school teachers have completed a curriculum designed to prepare them especially for teaching in a junior high school.[2] This author's further study of the practices of teacher-training institutions, as revealed by their bulletins, showed that the following percentages have outlined curriculums for the preparation of junior-high-school teachers: teachers' colleges, 58.1; normal schools, 20.0; universities, 19.7; colleges of liberal arts, 0.0. The curriculums were two, three, and four years in length, with the mode at four. The professional education courses most frequently required were the following, listed in the order of decreasing frequency: [3]

Practice teaching
Educational psychology
Introduction to education
History of education
Educational tests and measurements
General methods
Principles of secondary education
Junior high school

From their titles there is reason to believe that several of these courses do not treat junior-high-school problems exclusively.

It is difficult to prophesy the future of specialized training for junior-high-school positions. As the senior high school yields more and more to the reorganizing forces which have evolved the junior high school, the latter may seem less unique, with the result that differentiation in teacher training may appear less important.

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[1] M. E. Haggerty, "Specialized Curricula in Teacher-Training," *Yearbook Number XV* of the National Society of College Teachers of Education (1926), p. 5.

[2] Oliver R. Floyd, *The Preparation of Junior High School Teachers*, p. 21. United States Office of Education, Bulletin No. 20, 1932.

[3] *Ibid.*, pp. 22–25.

A fifth year of training. A later section of this chapter shows that a considerable percentage of high-school teachers, especially in the larger cities, have taken five years of training and acquired a master's degree. A distinct trend toward such extension of training is in evidence, stimulated especially by city requirements and salary-scale inducements. Objective determination of the most desirable pattern for the fifth year to follow is nonexistent. Nor have employing and certificating authorities of the school agreed yet on a pattern. Consequently, graduate schools have thus far wielded the largest influence.

The tradition of the graduate school is to grant a master's degree on the completion of approximately 24 semester credits in graduate courses, mostly in one department and for which at least 12 undergraduate credits are prerequisite, and also a thesis. The traditional practice has been modified in some institutions in recent years by the establishment of degrees for which no thesis is required, such opportunities usually being available only for students majoring in education.

Hughes and Melby [1] sought to determine by consensus of opinion the merit of five types of graduate teacher-training programs which they found to be most common in the education of 457 high-school teachers of social studies. The first choice of 50 to 75 per cent of superintendents, principals, and specialists in education was a curriculum in which the student takes about two thirds of his work in education courses related to the work of the teacher, and about one third of his courses in one or more of the social studies chosen especially to compensate for undergraduate deficiencies. The student's adviser in this curriculum is a specialist in the teaching of the social studies, and his thesis problem is "The Political Science of Everyday Life as Revealed by Analysis of Newspapers and Periodicals." The first choice of 25 to 35 per cent of these functionaries was a curriculum in which the student chooses history as a major but takes about one third of his work in education courses which bear on the teaching of the subject. His adviser is a specialist in American history, and his thesis problem is strictly in the field of history content.

About 53 per cent of teachers of social studies and 48 per cent of college professors of history gave this second curriculum as their first choice, while about 35 per cent of the former and 12 per cent of the latter indicated the first curriculum here described as their first choice. Thirty-six per cent of the history professors gave as their first choice a third curriculum, which was composed of major training in history with minor training in other social studies, no education courses being included. The remaining two curriculums, given first rank by few or none of the groups of judges, included none but history and none but education courses, respectively.

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[1] J. M. Hughes and E. O. Melby, "An Evaluation of Graduate Teacher Training Programs," *Journal of Educational Research*, XXIII (May, 1931), 394–403.

Such are the present alternatives in graduate training for secondary-school teachers, and such are the differences of opinion regarding them —as we view the problem in the United States. In this unsettled condition it may be particularly appropriate to take account of a notably different method employed in a foreign country.

Perhaps no system of teacher training is more stimulating to the American imagination than that of pre-Fascist Germany, as reported by Crane.[1] Candidates for secondary-school teaching had to have two years of professional training, in addition to their work in the university. Before entering this professional training they had to pass a state examination in three subjects commonly taught in the secondary school. "A young student who has passed this state examination is called a *studienreferendar*, and for two years he must study the theory of education and serve an apprenticeship, teaching without salary in the secondary schools." [2] This professional education was in charge of secondary-school authorities, each city appointing a director to supervise the apprentices, who taught one or two classes a day throughout the two-year period, having experience with all the subjects for which they were prepared, with the several types of secondary schools, and with pupils of various age levels. The director supervised the apprentices, met them once a week in a seminar on general educational theory, and arranged for them to have seminars in the teaching of their special subjects.

A prominent feature of the German program was the *Lehrprobe*, a kind of student demonstration lesson. Once a month, or thereabouts, each candidate taught a lesson before a large number of observers to a class which he had taught for some weeks or months.

Miss Crane suggests that the German plan has especially significant implications for us because of the oversupply of teachers and the trend toward requirement of a fifth year. As matters now stand:

> Even if the fifth year of training for teaching, which now seems to be near our grasp, should escape from the Scylla of ordinary academic graduate work

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[1] Esther Crane, "The Training of Secondary-School Teachers in Prussia—Some Impressions," *School Review*, XLII (March, 1934), 177–187.

[2] *Ibid.*, p. 179.

in preparation for the Master's degree, it may fall into the Charybdis of theoretical work in education—a year of discussion of how teaching ought to be done without any experience in doing it, which is about as effective as teaching swimming in a correspondence school.[1]

The German plan closely parallels the interneship of doctors. It offers such practical opportunities to judge teaching ability, as well as to develop it, that all who are connected with the selection of teachers, remotely or immediately, may profitably study it.

PREVAILING STANDARDS IN THE EDUCATIONAL QUALIFICATIONS OF TEACHERS

Years of training in higher institutions. That training is an important factor in the selection of teachers has already been made evident in this chapter. The standards actually being required or attained are now presented as evidence of the administrative practice of teacher-hiring authorities.

TABLE 39

Educational Qualifications Required of Newly Appointed Teachers Compared with Those Held by the Teachers in Service, 1930–31

Number of Years of Training beyond High-School Graduation	Junior-high-school Teachers		Senior-high-school Teachers	
	Required *	Held †	Required *	Held †
Less than one	.2	3.0	.1	1.4
One	.7	3.2	—	1.1
Two	23.8	17.5	.9	4.4
Three	24.5	16.0	.9	6.1
Four	50.2	43.7	94.6	58.1
Five	.6	12.1	3.4	20.2
Six	—	3.1	.1	5.9
Seven or more	—	1.5	—	2.9
	100.0	100.1	100.0	100.1

* Required of newly appointed teachers in cities having populations of 2500 and more. Source: "Administrative Practices Affecting Classroom Teachers, Part I: The Selection and Appointment of Teachers," *Research Bulletin of the National Education Association,* X (January, 1932), p. 8, Table 1.

† Held by the teachers in a wide sampling of schools of all sizes. Source: *Teacher Personnel in the United States,* p. 43, Table 12. National Survey of the Education of Teachers, Vol. II. United States Office of Education, Bulletin No. 10, 1933.

Table 39 shows the educational qualifications of junior-high-school and senior-high-school teachers in terms of years of training beyond high school. In parallel columns are presented the training required of newly appointed teachers in 1930–31 and the training possessed by existing staffs in the same year. Note that about half the cities have a requirement of four years of training for appointment to their junior-

[1] *Ibid.,* pp. 185–186.

high-school faculties, while the other half are about evenly divided between requirements of two years and three years. Almost none of the school systems represented will accept anyone with less than four years' training for its senior-high-school faculty. An appreciable percentage require five years. As to training attained, approximately one sixth of the junior-school teachers and more than one fourth of the senior-school teachers have had five or more years of training. Facts not shown in the table are that there is a direct relationship between size of city and the educational requirements and attainments of teachers, and that there is a trend toward higher requirements, most notably affecting junior-high-school teachers.

Extent and quality of specialized training in teaching subjects. Specific training for the subject taught is only one factor—but an important one—in the determination of teaching success. The degree to which teachers possess this qualification depends on the extent to which subject certification is required, the extent to which the training institution has given adequate curriculum guidance, the care with which the teacher's schedule has been matched with his training, and the number of different subjects he is called on to teach.

Buckingham made a large-scale study of Ohio in which he surveyed the actual teaching positions and also the major and minor training of all teachers graduated from Ohio teacher-training institutions in the five-year period of 1919–23. He found that "a great many teachers are teaching subjects in which they have neither majored nor minored." [1] Hutson's survey [2] of Minnesota disclosed a similar situation, more serious in the smaller than in the larger schools. Similar studies have been made in many states.

It may not be assumed, however, that specialized preparation is adequately measured by the number of hours taken in the college department corresponding to the high-school subject to be taught. Some courses in a department constitute better preparation for high-school teaching than do others. Realizing this, the teacher-hiring authority should examine a candidate's special training in some detail to determine its appropriateness.

To make a more refined measurement of specialized preparation, Hutson [3] investigated the college and university records of courses

[1] *Op. cit.*, p. 106.

[2] P. W. Hutson, *Training of the High-School Teachers of Minnesota*, pp. 35–37, Table IX. Educational Monograph No. 3, Bulletin of the University of Minnesota, College of Education, 1923.

[3] P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, Chap. III, IV. The Macmillan Company, 1927.

taken by recent graduates who were teaching social studies or English in Minnesota high schools. He found that the teachers had pursued courses which varied widely, and that frequently they had specialized so narrowly as to omit entirely training for some aspects of their high-school work. Of teachers trained to the extent of 24 to 35 hours in English, no courses had been taken in American literature, public speaking, or the teaching of English by approximately 60, 45, and 50 per cent, respectively. For teachers who had taken 36 or more hours in English, the corresponding percentages were approximately 40, 10, and 50. That such large percentages of teachers possessing what may be termed as "major" and "super-major" training should lack all contact with fields of such importance to the high-school curriculum in English is a condition to be deplored.

Training in professional subjects. Concerning the requirement of courses in education by training institutions, the National Survey of the Education of Teachers accumulated extensive information from which a few representative facts may be quoted. Of 590 academic curriculums for teachers in 57 colleges and universities, 97.1 per cent required some courses in education, with a range of from 6 to 35 hours, the median being 18.[1] The courses most frequently prescribed and most frequently taken are shown in Table 40.[2] Numerous subjects were prescribed and were taken with less frequency than those shown in the table. The situation is such as to indicate no considerable agreement on the professional education of the teacher.

TABLE 40

COURSES IN EDUCATION MOST COMMONLY PRESCRIBED AND MOST COMMONLY TAKEN

COURSE IN EDUCATION	PERCENTAGE OF 45 UNIVERSITIES AND COLLEGES PRESCRIBING COURSE	PERCENTAGE OF MAJORS IN ACADEMIC SUBJECTS TAKING COURSE	PERCENTAGE OF MAJORS IN SPECIAL SUBJECTS TAKING COURSE
Educational psychology	78.0	85.0	74.8
General psychology	73.0	76.0	65.3
Special methods	60.0	64.0	86.7
Student teaching	42.0	61.5	79.0
General methods	48.0	60.0	44.0
History of education	38.0	58.0	50.7
Secondary education	40.0	31.5	14.7

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[1] W. E. Peik, *Supplementary Report, Curricula for the Education of Teachers in Colleges and Universities*, p. 30, Table 36. Washington, D. C.: United States Office of Education, June, 1933. (Mimeographed)

[2] *Ibid.*, pp. 46, 49. Adapted from tables 54 and 60.

What are the most useful courses in education? To date the most comprehensive attempt to answer this question is the evaluation of professional training made by Peik.[1] He analyzed the prescribed courses in education for prospective high-school teachers at the University of Minnesota, then secured a detailed alumni evaluation of courses, of topics treated, and of the adequacy of the treatment of the topics. The alumni ranked their courses in education: first, with respect to direct helpfulness in actual teaching (practical value); second, with respect to direct or indirect helpfulness in educational thinking (theoretic value); and third, with respect to general helpfulness from all points of view (general value). The rankings are shown in Table 41. Study of the table suggests that the teachers evinced a much higher state of agreement on practical value than on theoretic value, judging by the range of the average rankings. The notable differences, however, in the order of the subjects in the two rankings make it clear that the teachers recognize the difference in the two judgments they were asked to render. The ranking of the subjects in general value is the same as that in practical value, but the subjects are not spread out so far on the scale as in practical value. The high rank given to practice teaching and to special methods, both of which may be judged to have quite specific relations to the classroom situations the teachers daily meet, suggest

TABLE 41

THE RANKING GIVEN TO PRESCRIBED COURSES IN EDUCATION BY 100 ALUMNI OF THE UNIVERSITY OF MINNESOTA

Rank Order	Practical Value	Average Rank	Theoretic Value	Average Rank	General Value	Average Rank
1	Practice Teaching	1.49	Educational Psychology	2.67	Practice Teaching	2.02
2	Special Methods	2.36	Educational Sociology	3.55	Special Methods	2.64
3	Educational Psychology	3.69	The High School	4.07	Educational Psychology	3.34
4	Technique of High-school Instruction	3.94	Special Methods	4.16	Technique of High-school Instruction	4.43
5	The High School	4.81	History of Education	4.33	The High School	4.71
6	Educational Sociology	5.46	Technique of High-school Instruction	4.54	Educational Sociology	5.09
7	History of Education	6.27	Practice Teaching	4.79	History of Education	5.79
	Range	4.78	Range	2.22	Range	3.75

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[1] W. E. Peik, *The Professional Education of High School Teachers.* Minneapolis: University of Minnesota Press, 1930.

that those are elements of the teacher-training program on which there could well be unanimity in practice. Studies other than the one cited here have yielded similar high valuations of those two experiences. Teacher-hiring authorities, engaging inexperienced teachers, will do well to select teachers from among those candidates who have had rich courses in practice teaching and special methods.

THE RELATION OF EXPERIENCE AND TURNOVER TO TEACHER SELECTION

Attainments and requirements in teaching experience. Teaching has been notorious as a profession followed for short periods by young men who use it as a "steppingstone" to some other occupation which they regard as their real life career, and by young women who take it up and shortly forsake it for the role of homemaker. Such a condition has been deplored as making teaching a "procession" rather than a profession, as making it exceedingly difficult to build up a stable staff, and as depriving our youth of the leadership of teachers fully devoted to their work and matured in their ability. Viewed from this angle, it is evident that the task of administration in building up a capable teaching personnel assumes unusual complexity; and the shorter the teacher's term of service, the more frequently must the selective function be exercised. In addition to hiring teachers, administration has the responsibility of cutting down turnover, if the schools are to function most effectively. For an understanding of this problem, data from several studies are quoted.

According to the report of the National Survey for the Education of Teachers,[1] the approximate median age of junior-high-school teachers is 30 years, and of senior-high-school teachers, 29 years. These figures plainly corroborate the general impression that for many teachers the profession is one of short duration. That it has been increasing in length is evident from an item which the authors of the Survey quote from the Bureau of the Census, to the effect that the percentage of teachers who were 45 years of age or older increased from 8 in 1890 to 17 in 1930.

The same survey showed, state by state, the summary of the distribution of teachers according to the years of experience they had had. The following data show the ranges of the quartiles and medians, signifying a considerable difference between states:[2]

[1] *Op. cit.*, p. 20.

[2] *Ibid.*, p. 31, Table 8.

	Junior-High-School Teachers			Senior-High-School Teachers		
	Q_1	M	Q_3	Q_1	M	Q_3
Lowest state.....	3	6	10	3	5	8
Highest state.....	7	14	23	10	18	27

That the small schools typically are staffed by teachers of brief experience is common knowledge. One of the monographs of the National Survey of Secondary Education [1] affords verification of this impression. The median years of experience of teachers in unselected small schools was found to be 3.4, while in a group of small schools selected as outstanding it was 3.8.

The relationship between experience and size of community is quite clearly suggested in Table 42, which is taken from Van Houten's comprehensive study of Pennsylvania.[2] Plainly, the smaller the school, the more severe are the administrative problems of teacher selection. Furthermore, if experience and maturity are factors in the teacher's effectiveness, as presumably they are, the pupils of the smaller schools are at a disadvantage. To overcome this inequality is an administrative problem.

TABLE 42

Median Years of Experience of Pennsylvania High-School Teachers

District and Population	Total Years of Experience		Years in Present Position	
	Men	Women	Men	Women
First Class (Over 500,000).........	12.16	14.77	4.80	4.78
Second Class (30,000–500,000)......	7.89	9.77	3.67	3.93
Third Class (5000–30,000).........	5.60	6.73	2.34	2.93
Fourth Class (Less than 5000)......	4.74	3.74	1.63	1.66
All Districts.....................	6.99	7.87	2.66	2.98

One clear reason for the positive correlation between length of experience and size of community is the practice of larger cities in requiring experience as a qualification of newly appointed teachers. Figure 26 [3] shows the extent of this practice among cities of various

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[1] Emery N. Ferriss, W. H. Gaumnitz, P. Roy Brammell, *The Smaller Secondary Schools*, p. 74, Table 38. Monograph No. 6.

[2] L. H. Van Houten, *Length of Service of Pennsylvania High School Teachers*, p. 14, Table II. Teachers College, Contributions to Education, No. 522, 1932.

[3] Adapted from "Administrative Practices Affecting Classroom Teachers. Part I: The Selection and Appointment of Teachers," *Research Bulletin of the National Education Association*, X (January, 1932), p. 13, Table 3.

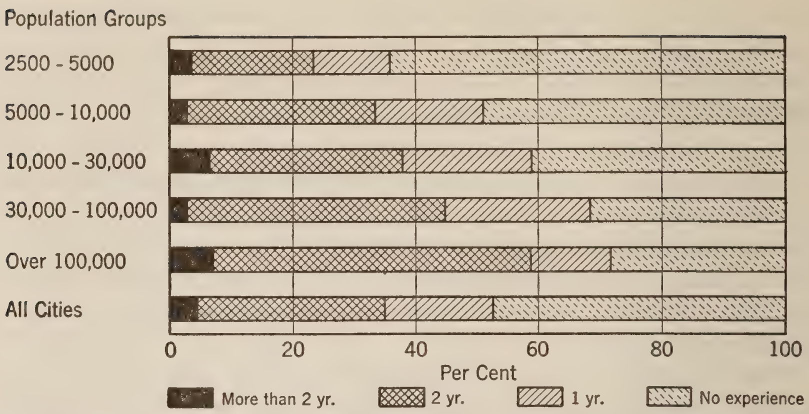

FIGURE 26. Experience Requirements for Newly Appointed Teachers in Senior High Schools, 1930–31

sizes. A direct relationship exists between size of city and frequency of application of the experience requirement. Because many conditions attract teachers to the larger communities, those districts are able to impose restrictions which assure them a teaching personnel that has been tested. Many authorities advocate that all school systems should accept some inexperienced teachers, that it is unfair to impose this burden so largely on the smaller schools, where the load is heaviest and the supervision is weakest. Some, indeed, express the view that experience gained under such conditions results in little or no growth in the teacher and that the more favorably situated school systems would do well to accept the responsibility for contributing experience—carefully guided experience—to some beginners in teaching.

The turnover of high-school teachers. From the standpoint of the administrator responsible for staffing a school, length of stay *in present position* is a datum quite as important as length of experience. This is a direct measure of the frequency with which teachers must be replaced. A rough indication of the dimensions of this problem is the finding of the National Survey of the Education of Teachers that the ratio of the number of new teachers to the total number of teachers employed was 1.00 : 4.24 for senior-high-school teachers and 1.00 : 4.95 for junior-high-school teachers in the median state for 1930–31.[1] That there is a relationship between size of community and rate of turnover is evident from the right-hand columns of Table 42, page 341. This relationship is further emphasized by data from the National Survey of Secondary Education, as shown in Table 43.[1] It is apparent that in the smaller school systems a full quarter of the teachers are replaced each year.

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[1] E. S. Evenden, "The Supply and Demand for Senior High School Teachers," *School Life*, XVII (January, 1932), 92–93; "The Demand for and Supply of Junior High School Teachers," *School Life*, XVII (March, 1932), 132–133.

TABLE 43

AVERAGE PERCENTAGES OF STAFF MADE UP OF NEW TEACHERS FOR THE YEAR 1929–30

POPULATION GROUP	JUNIOR HIGH SCHOOLS	SENIOR OR FOUR-YEAR HIGH SCHOOLS
More than 100,000	5.7	4.6
30,000–100,000	10.4	9.3
10,000–30,000	13.8	13.9
2500–10,000	17.6	19.3
Less than 2500	26.3	28.1

Williams's ten-year study [2] of turnover in Illinois showed a decrease in the percentage of turnover from 38.8 in 1921–22 to 18.7 in 1930–31. The years of the economic depression have probably brought about a further decrease. The increasing supply of teachers and the lack of economic opportunity outside the profession have no doubt operated to cut down voluntary withdrawals from teaching or transfers to other positions.

The causes of turnover may profitably be analyzed for the guidance of administrative policies thus afforded. Among the several available studies of this problem, it will be sufficient to draw on a comprehensive study of the situation in the small high schools of Indiana. As ascertained from county superintendents, the causes of dismissal of teachers and principals in the township secondary schools, which are administered by a trustee elected by popular vote, are as follows, together with their frequency of mention: [3]

Professional: Weak in discipline, 91; lacked necessary subject combination, 90; generally unsatisfactory, 48; failed to co-operate, 44; "poor" instructor or administrator, 33; unsatisfactory qualifications, 24; deficient in other respects, 22.

Political: To avoid tenure law, 371; election of new trustee, 197; replaced by local teacher, 130; politics, 95; others, 81.

Personal: Deficient in personality traits, 55; married, 46; problem case in conduct, 42; others, 27.

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[1] W. S. Deffenbaugh and William H. Zeigel, Jr., *Selection and Appointment of Teachers.* National Survey of Secondary Education, Monograph No. 12. United States Office of Education, Bulletin No. 17, 1932. Adapted from Table 5, p. 12.

[2] Lewis W. Williams, "Turnover among High-School Teachers in Illinois," *School Review*, XL (June, 1932), p. 418, Table I.

[3] Donald L. Simon, "Turnover among Teachers in the Smaller Secondary Schools of Indiana," *School Review*, XLIV (February, 1936), 122. Adapted from Table V.

Economic: Reduction of staff, 57; others, 34.
Community: Community dissatisfaction, 34; others, 31.
Miscellaneous, 40.
Total, 1592.

Causes of voluntary withdrawal, with their frequency of mention, are as follows: [1]

Professional: To secure promotion, 409; to secure further training, 61; others, 24.
Political, 10.
Personal: Married, 130; ill health and related factors, 54; others, 57.
Economic: Entered another type of work, 59; accepted position nearer home, 42; accepted position in home town or township, 41; reduction in salary, 31; others, 23.
Community, 2.
Miscellaneous, 11.
Total, 954.

It is evident from these lists of causes that the number of mentions which classify under dismissal is almost twice as large as the number which classify under voluntary withdrawal, and that more than half the mentions of causes of dismissal are classified as political. Of the mentions of the causes of voluntary withdrawal, over half are professional, testifying to the evident feeling of many teachers that a satisfactory career is not to be had in these small schools.

Significance of the facts of turnover for administrative practice. In industry much attention has been given to labor turnover; it is recognized that a high rate of turnover is expensive; and scientific employment has been found to be economy. In education a high rate of teacher turnover is expensive to the school because of the excessive time and expense which must be devoted to the selection of teachers and because of the additional supervision made necessary by the lack of knowledge concerning local standards, conditions, and so forth on the part of new teachers. The more serious cost of turnover, however, is borne by the pupils, and therefore by society, because of the lower efficiency of teachers who are strange and unaccustomed to their pupils, equipment, and community. There is, moreover, a heavy burden of expense to society at large in the training of many teachers who serve in the profession only a short time and then leave it. While the expense of either of these types of turnover cannot be measured in dollars and cents as in industry, it is nevertheless present.

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[1] *Ibid.*, pp. 122–123.

How to secure longer stay in present positions and in the teaching profession is a pressing question. One essential step seems to be the exercise of greater care in the selection of teachers, from both experienced and inexperienced candidates. The hiring authority must seek out individuals of high professional training, interest, and ability; if teachers of experience can be obtained, one of the advantages achieved is the smaller likelihood of loss through failure. The large percentage of teacher failures in small schools is no doubt due to the large proportion of beginning teachers in those schools. The practice of many cities is to require two years of experience of candidates for positions on their staffs, and from their standpoint the requirement seems fully justified; but to equalize educational advantage, all systems should take similar proportions of teachers without experience.

Salary schedules which attract and retain capable individuals are being urged by state and national associations of teachers and administrators as a means of increasing tenure. Obviously such a measure can go far toward creating the life-career interest in teaching. It is discussed at length in Chapter XI. It seems doubtful, however, whether a complete leveling off of the salary differential now existing between large cities and small ones would also completely level off the differential in teacher experience and turnover. The cityward drift affects teachers as it does all our population. Furthermore, the teaching load, which is discussed fully in the next chapter, is frequently more attractive in the large high school than in the small one. In short, the administrator who would achieve stability in his staff must give consideration to all the conditions which make a position attractive—salary, load, tenure, living and social conditions, and so on. While much can be done by the authorities of any administrative unit, the certain establishment of teaching as a profession to be looked forward to as a life career depends on the prolonged cooperative endeavor of teacher-training authorities, administrators, and the public.

OTHER FACTORS IN DETERMINING TEACHER PERSONNEL

Sex. A problem in teacher selection which has given much concern is that of securing men for secondary-school faculties. Economic conditions and increasing occupational competition from women have caused variation from decade to decade in the proportions of men and women teachers. Table 44, drawn from the report of the National Survey for the Education of Teachers,[1] shows the domination of the profession by single women in 1930–31. Men constituted about a fourth and a third of junior-high-school and senior-high-school faculties, respectively. Depression years increased rather markedly the proportion of men in both regular four-year high schools and in reorganized secondary schools.

TABLE 44

PERCENTAGE DISTRIBUTIONS OF JUNIOR-HIGH-SCHOOL AND SENIOR-HIGH-SCHOOL TEACHERS ACCORDING TO SEX AND MARITAL STATUS

SEX AND MARITAL STATUS	JUNIOR-HIGH-SCHOOL TEACHERS	SENIOR-HIGH-SCHOOL TEACHERS
Woman, single	62.1	55.7
Woman, married	10.0	7.2
Woman, divorced	1.1	.8
Widow	2.6	1.4
Man, single	8.8	12.0
Man, married	15.0	22.4
Man, divorced	.2	.2
Widower	.2	.3
Total	100.0	100.0

So important is it considered that the present proportion of men in secondary-school faculties be retained, and increased if possible, that the men are commonly paid larger salaries than the women. The determination of the comparative value of the two sexes was the object of brief research by Koch. He concluded: [2]

1. Men have problems in as great number and variety as do women.
2. The character of the difficulties experienced by each sex is the same.
3. There is no particular advantage in having *like* sex deal with like.
4. The statement by Briggs, that it is probable that the qualities desired in a teacher are much more characteristic of an individual than of a sex, is supported here.

The effort to obtain a good representation of men on high-school faculties cannot be based on an assumed superiority over women in teaching ability, but must rest on the grounds of the desire to create a natural social situation in the school. This is the view now commonly stated in justification of such an administrative policy. The effecting of this policy by the payment of larger salaries to men than to women is a sharply debated issue, which is presented in a later chapter devoted to salary problems.

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[1] *Op. cit.*, pp. 24–25, Table 7.

[2] H. C. Koch, "Is There a Difference between the Problems of Men and Women Teachers?" *Educational Research Bulletin* (Ohio State University), V (April 14, 1926), 166.

Marital state. The desirability of employing married women as teachers has become an issue quite largely since the World War. That event added remarkable impetus to the movement for the emancipation of women; the social taboo which kept married women in the home and out of gainful employments was somewhat broken down; and the exigencies of war brought women into schoolroom, factory, and office. When peace returned, competition for employment became keen, with the result that the attempt was made to raise the social taboo once more. The effort has been more successful in ruling married women out of the teaching profession than out of industry and business.[1] Two surveys by the National Education Association showed that in 1928 the percentage of cities employing married women as new teachers was 39.0, and the percentage retaining single women who marry was 49.2; while in 1931 the comparable percentages were, respectively, 23.4 and 37.1.[2] Similar data on current practice were reported in the National Survey of Secondary Education.[3]

While many arguments have been advanced for and against the employment of married women teachers,[4] it should be kept in mind that the economic situation of a comparative oversupply of teachers is probably basic to most of the opinion that marriage should disqualify a woman for pursuit of this calling. In view of the common deprecation of the brevity of the career of teacher, of having pupils trained so largely by the young and immature, and of the public expense of preparing so many for teaching, it would seem that an opportunity to increase the length of service in the profession should be welcomed. Experience and training in any profession are the ultimate criteria, and they can hardly be affected by the married or unmarried status of the individual. The problem is to win such unwavering adherence to these criteria that irrelevant factors will not influence employing authorities.

Because the efficiency of married women teachers has been called into question, several investigators have sought light on that problem.

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[1] David W. Peters, *The Status of the Married Woman Teacher*, Chap. II. Teachers College, Contributions to Education, No. 603, 1934.

[2] "Administrative Practices Affecting Classroom Teachers. Part I: The Selection and Appointment of Teachers," *Research Bulletin of the National Education Association*, X (January, 1932), 20, Table 6.

[3] Deffenbaugh and Zeigel, *op. cit.*, pp. 22–27.

[4] See E. E. Lewis, *Personnel Problems of the Teaching Staff*, pp. 185–188. Century Company, 1925.

The following question was asked of 954 superintendents:[1] "Are married women with equal training and experience as efficient as unmarried?" The answers were:

	Per cent
Yes	63
No	18
Conditional	15
Married women more efficient	4
Total	100

Studies by Carrothers[2] and Goodier[3] disclosed a slightly higher absence rate on the part of married women than among single women. In Detroit Moehlman[4] compared principals' ratings of single and married women teachers and found that the latter group stood slightly higher. He also found that of those women who were in service both before and after marriage, "60.7 per cent . . . gained in efficiency rating after marriage, while 25.3 per cent remained stationary, and only 14 per cent lost in rank."

The most comprehensive study of the relative efficiency of married and single women teachers is that of Peters.[5] It involved 2640 teachers, matched according to age, experience, and training, and it compared the two groups on such factors as learning progress of children, ratings by supervisory officers, absences for illness and nonillness, in-service training, daily preparation for specific teaching functions, out-of-class activities assumed, and participation in professional and civic organizations. The mass of evidence is fairly summed up in Peters' statement that "This study produced no evidence that justifies a policy of discrimination against married women teachers as a class."[6]

The factors of residence and nepotism. One of the subjects of inquiry in the investigation of teacher selection by the National Education Association was the policy with respect to candidates who reside in the local district. In response to the simple question, "Does your policy give preference to the appointment of local residents as teachers?"

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[1] "Employing Married Women in the Schools," *American Educational Digest*, XLVI (October, 1926), 57.

[2] George E. Carrothers, *Physical Efficiency of Teachers*, pp. 34–38. Teachers College, Contributions to Education, No. 155, 1925.

[3] Floyd T. Goodier, "Another Conclusion Regarding the Married Woman Teacher," *The Nation's Schools*, II (December, 1928), 51–52.

[4] Reported in Lewis, *op. cit.*, pp. 179–180.

[5] *Op. cit.*, Chap. IV.

[6] *Ibid.*, p. 89.

the response was "Yes" from 57.7 per cent of the school systems and "No" from 42.3 per cent.[1] The proportion preferring local residents varied from 44 per cent among cities of 2500 to 5000 in population to 80 per cent among cities of over 100,000. A commonly stated condition, however, is that such preference will only be shown if the qualifications of local applicants are at least equal to those of outside applicants.

A difference in the form of inquiry is perhaps responsible for the somewhat different picture of practices shown by the National Survey of Secondary Education. This authority reported findings as follows: [2]

Preference given to local candidates	19.6%
Preference given to nonlocal candidates	16.2%
No rule or stated preference	62.7%
Other provisions	1.5%

Regardless of these two surveys, both of which were made in 1930, it is common knowledge that the economic depression of the years since that date has caused many communities to select new teachers almost exclusively from local residents. Obviously, such a policy is likely to be subversive of the best interests of the school. As compared with the welfare of the pupils, the location of the teacher's home should be of small consequence. Even when the competency of home talent is equal to that of the best outside, some limit on employment of local residents seems advisable in order to check the inbreeding which may result in provincialism and lack of progress.

That teacher selection is sometimes governed by factors more clearly vicious than the residence factor is evident in the results of an investigation conducted in eastern Kentucky.[3] A confidential questionnaire, submitted in April, 1933, to 614 students of three colleges who had taught in county school systems during 1932–33 and to 683 students who had a position or the promise of one in county school systems for 1933–34, yielded the percentages shown in Table 45, page 350. More than a third of the teachers either had bargained or had had a relative officially connected with the school, the latter condition appearing with much the greater frequency. These practices of bargaining and of nepotism were most serious with the teachers of least training. That they militate against the professionalization of teaching becomes especially clear when account is taken of the fact that in

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[1] *Op. cit.*, p. 22, Table 7.

[2] Deffenbaugh and Zeigel, *op. cit.*, p. 28, Table 12.

[3] "Nepotism in the Schools," *School Review*, XLII (February, 1934), 81–85.

1931–32 in the state of Kentucky 3600 certificates based on two years or more of college training were unused, while at the same time 9300 positions were held by persons who had certificates based on a half year or less of college training.

TABLE 45

PERCENTAGES OF TEACHERS WHO BARGAINED FOR THEIR POSITIONS OR HAD SOME RELATIVE OFFICIALLY CONNECTED WITH THE SCHOOL

METHOD OR INFLUENCE USED	1932–33	1933–34
Paid money	4.1	3.5
Paid something other than money	0.8	1.0
Agreed to board at a specific place	2.9	1.8
Had a relative connected with the school	25.4	30.3
Total	33.2	36.6

Twenty states have evinced legal recognition of the dangers of nepotism by passing laws governing the appointment of relatives of board members.[1] In many of these states school boards are not permitted to appoint relatives of any members except by a unanimous or a three-fourths vote. The National Survey of Secondary Education found that "many city boards of education have also adopted policies concerning the employment of relatives of school-board members." [2]

While it is encouraging to note these steps to prohibit nepotism, there can be little doubt that this untoward practice has been employed with increasing frequency in many communities during the depression. These years of a superabundant supply of teachers *should* have resulted in a general improvement of school staffs. Unfortunately, the welfare of the children has often been overlooked, and teachers have been selected on the basis of such extraneous factors as residence or relationship.

Less tangible factors. The vital importance of character and personality as elements in the teacher's qualification scarcely needs assertion here. Thoughtful employing authorities have always exercised great care in attempting to select teachers possessed of certain traits which are intangible and difficult to measure but are indispensable to the success of the teacher. A recent study which has thrown these essential qualities into high relief is Hart's assembly of the characterizations given by 10,000 high-school seniors of the teacher liked best, the teacher liked least, and the teacher who taught most effectively,[1] designated as "Teacher A," "Teacher Z," and "Teacher H," respectively. Illustrative evidence of the findings of this research is presented in Table 46. It conveys a decided impression that high-school seniors appreciate good teaching technique, efficient class management, and such relationships with pupils as contribute to mental health. Educational literature contains quantities of theoretical discussion of the desirability of such qualities in the teacher. No summary is attempted here, but some light on these intangibles and their relative importance is given in the next section.

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[1] Earl W. Anderson, *The Teacher's Contract and Other Legal Phases of Teacher Status*, pp. 164–165. Teachers College, Contributions to Education, No. 246, 1927.

[2] Deffenbaugh and Zeigel, *op. cit.*, p. 29.

TABLE 46

THE TWELVE MOST FREQUENTLY MENTIONED REASONS FOR LIKING "TEACHER A" BEST, AS REPORTED BY 3725 HIGH-SCHOOL SENIORS

REASONS	FREQUENCY OF MENTION
Is helpful with schoolwork, explains lessons and assignments clearly and thoroughly, and uses examples in teaching	1950
Cheerful, happy, good-natured, jolly, has a sense of humor, and can take a joke	1429
Human, friendly, companionable, "one of us"	1024
Interested in and understands pupils	937
Makes work interesting, creates a desire to work, makes class work a pleasure	805
Strict, has control of the class, commands respect	753
Impartial, shows no favoritism, has no "pets"	695
Not cross, crabby, grouchy, nagging, or sarcastic	613
"We learned the subject"	538
A pleasing personality	504
Patient, kindly, sympathetic	485
Fair in marking and grading, fair in giving examinations and tests	475

A characteristic which figures with increasing prominence in the teacher's success is that of *flexibility*. As our conception of teaching shifts away from the drilling of pupils to fix in their minds a body of subject matter, specialized scholarship and skill in "imparting" it yield to other qualifications in importance. When the pupil and changing society become the central points of reference which orient the teaching process, and when subject matter more clearly becomes a means rather than an end, the teacher must be flexible, able to grasp and utilize those learning situations which are present in pupils' purposes, sensitive to the pupils' environment as they see it, and capable of helping them to understand and control it. Such a quality, expressed in such abilities, is fundamental in the teacher's equipment, and though intangible, must be evaluated by the best evidence the teacher-employing authority can assemble.

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[1] Frank W. Hart, Compiler, *Teachers and Teaching, by Ten Thousand High-School Seniors.* By permission of The Macmillan Company, publishers.

SOME EVALUATIONS OF VARIOUS FACTORS CONSIDERED IN TEACHER SELECTION

Causes of teacher failure. The administrative officer responsible for selecting teachers obviously attempts to obtain teachers who will achieve success. The reasons why teachers fail constitute a valuable index to traits or abilities that should be considered in selecting teachers. While there is no objective standard by which one can say that a teacher is a failure, a number of studies have been made by asking administrators (usually superintendents) to consider the teachers under their direction who have been dismissed or were not re-elected and list the causes of "failure." Representative of these studies is one made by R. H. Morrison, who kept a record of the causes of dismissal of teachers as he learned of them through forty interviews with superintendents and board members coming to him in quest of teachers. The reasons most frequently mentioned were as follows: [1]

	Frequency
Poor discipline	17
Inability to co-operate	14
Gossip	11
Immorality, sexual	11
Lack of teaching skill	10
Disloyalty	9
Inability to get along with pupils	8
Unwise choice of social companions	8
No desire for professional growth	7
Irresponsibility	6
Critical of colleagues	6

By studying the difficulties of beginning teachers, as sensed by the teachers themselves and by their principals, Barr and Rudisill have assembled data which suggest the main causes of teacher failure and the relative importance of each cause. Table 47,[2] listing the difficulties most frequently mentioned, shows that "control over pupils" is most keenly felt by teachers to be a problem in the first two weeks, but that approximately a third find it one of their difficulties through the first year, while one sixth of second-year teachers name it as a difficulty. The next four difficulties may be classified as skills in teaching. The principals mentioned "control over pupils" most frequently as a difficulty of beginning teachers; they observed difficulty in teaching skills; and with considerable frequency they found three difficulties—the last three listed—of which no teachers were aware.

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[1] R. H. Morrison, "Factors Causing Failure in Teaching," *Journal of Educational Research*, XVI (September, 1927), 98–105.

[2] A. S. Barr and Mabel Rudisill, "Inexperienced Teachers Who Fail—and Why," *The Nation's Schools*, V (February, 1930), 32, Table V. Quoted by permission.

TABLE 47

THE MOST IMPORTANT DIFFICULTIES OF BEGINNING TEACHERS, WITH THE PERCENTAGES OF TEACHERS AND PRINCIPALS MENTIONING THEM

DIFFICULTY	TEACHERS			PRINCIPALS
	First Two Weeks	Continued in First Year	In Second Year	
Control over pupils	40.5	32.5	16.6	53.4
Provision for individual differences	29.1	38.3	51.2	25.0
Presentation of subject matter	37.2	17.5	23.3	38.6
Motivation	36.5	39.2	25.6	13.6
Organization of work and materials	27.0	19.2	25.6	20.5
Conditions for work	27.7	20.0	20.9	0.0
Adjustment of teacher to classroom situation	29.1	0.8	2.3	1.1
Personal characteristics of teacher	0.0	0.0	0.0	37.5
Appreciating the importance of pupils	0.0	0.0	0.0	18.2
Teacher's relations to school and community	0.0	0.0	0.0	14.8

It is apparent that character, personality, and professional zeal largely determine the success of the teacher. Poor discipline, the most frequent cause of failure, is probably due primarily, it will be generally agreed, to weakness in character or personality. Such specific factors as were treated in preceding sections of this chapter—training, experience, sex, and marital status—figure infrequently in teacher failure. Scholarship, intelligence, appearance, and health, which appear as frequently as any items on teachers' reference blanks, are seldom so inadequate as to be adjudged the causes of failure. Probably they do not cause teacher failure, just because we have emphasized those factors in teacher selection and teacher training. The teacher must have a degree of intelligence and scholarship to undergo the training required of him without being eliminated along the way. Furthermore, it is no doubt difficult to draw the line between success and failure on the basis of scholarship and intelligence, and that may be a reason why it is so infrequently done.

Correlations of various elements with teaching success. Success in teaching is, of course, a relative matter. In selecting teachers, the administrator is interested not merely in avoiding those who may fall below the arbitrary threshold that he may set up; the degree of success that is likely to be achieved must figure largely in his weighing of candidates. He needs to know the criteria or the measurements which should be considered and also their relative value as predictive instruments.

A number of prognostic studies have been made, but their results are generally disappointing. One of the most thorough of these researches is that by Kriner.[1] Having well-qualified superintendents select the best ten per cent and the poorest ten per cent of their teachers, he found noteworthy positive relationships between success in teaching and the stamina or interest to continue the study of Latin and mathematics beyond two units in high school, and between success in teaching and the choice of teaching as a career while in secondary school. He found negative relationships between success in teaching and the admission that teaching was not planned for while in secondary school or that teaching was planned for only as a steppingstone to something else.

The well-known study by Knight [2] is seriously limited in the validity of its findings for secondary-school teachers because of the small number of cases of teachers at that level. Somers [3] found the following correlations between success in the first year of teaching in elementary schools and measures taken in normal school:

Intelligence tests	.43
Personality estimates	.62
First-semester normal-school mark	.60
Teaching in training school	.70
Two years' marks	.71
Extracurricular activities	.41
"Black Beauty" (official register of class cuts and similar delinquencies)	—.53

That comparable relationships do not exist for secondary-school teachers is apparent from Ullman's [4] research. He studied 116 graduates of the University of Michigan who were teaching in secondary schools. Taking measurements of their teaching success at the end of the first semester of teaching by averaging the ratings of each teacher's principal and superintendent as given on the Michigan rating card, he correlated these performance measures with a number of predictive measures. All coefficients proved to be low, the highest being .36, with practice teaching as the predictor. The correlation between teaching success and marks earned in academic and professional subjects was .30, and between teaching success and marks in major subjects, .20.

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[1] Harry L. Kriner, *Pre-Training Factors Predictive of Teacher Success.* Penn State Studies in Education, No. 1. State College, Pa.: School of Education, Pennsylvania State College, 1931.

[2] F. B. Knight, *Qualities Related to Success in Teaching.* Teachers College, Contributions to Education, No. 120, 1922.

[3] G. T. Somers, *Pedagogical Prognosis.* Teachers College, Contributions to Education, No. 140, 1923.

[4] Roy R. Ullman, "The Prediction of Teaching Success," *Educational Administration and Supervision,* XVI (November, 1930), 598–608.

A basic difficulty in attempting to find the significance of various factors in teaching success is our relative inability to measure teaching itself. This problem is discussed in a later section of this chapter. Some writers, however, sense a more fundamental obstacle. It was Haggerty's opinion [1] that the studies to date have overlooked the essential element in the teaching situation, which is the teacher-pupil relationship. Since pupils as well as teacher determine the quality of that relationship, it follows that a given teacher may be very successful with one group of pupils, achieve average success with another group, and fail utterly with a third group. As Haggerty pointed out, one "who fails to teach well in the eighth grade because of lack of adequate scholarship may be an excellent teacher in Grade Three"; one "who cannot manage the boys in the upper grades may experience no similar difficulties in the kindergarten"; one "who imparts the boredom of her task to her fifth-grade pupils may come to life in the senior high school." [2] A similar point of view has been expressed by Trow.[3]

To the administrator responsible for teacher selection this consideration should suggest not only that he must study the characteristics of applicants but that he must estimate the quality of the relationships which they may be capable of building with the particular group for which a teacher is to be selected. It means, also, a readiness to reassign a teacher who is failing or who is achieving only mediocre success to pupils of a different age, intelligence, or background. Personnel departments in industry have long practiced the shifting of failing workers for the better matching of talents with employment. Within the limits imposed by certification and other factors, school administrators may well employ the same policy in the attainment of efficiency in the school.

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[1] M. E. Haggerty, "The Crux of the Teaching Prognosis Problem," *School and Society*, XXXV (April 23, 1932), 545–549.

[2] *Ibid.*, p. 548.

[3] William C. Trow, "How Shall Teaching Be Evaluated?" *Educational Administration and Supervision*, XX (April, 1934), 264–272.

DEVICES AND PROCEDURES IN THE SELECTION OF TEACHERS

Who is responsible? Consideration of this question has commonly been given in terms of the general function of teacher selection, and not with special reference to high-school teachers. Authorities in school administration have been interested largely in establishing this function as a technical task to be performed by an educational expert, the superintendent, rather than by the board of education. They would have him held responsible for the conduct of the school system, and in keeping with that concept they would give him free rein in choosing his personnel. Practice in the allocation of responsibility for teacher selection was found by the National Survey of Secondary Education to be as shown in Table 48.[1] The infrequency with which Procedure A is used signifies a well-nigh universal relinquishment by boards of education of initial responsibility for teacher selection. However, there can be no doubt that in some school systems pressure is brought to bear on the superintendent by board members to nominate certain applicants, and that sometimes he yields to such pressure.

TABLE 48

Percentages of School Systems Using Certain Procedures in the Selection and Appointment of Teachers

Procedure	Elementary-School Teachers	Junior-High-School Teachers	Senior-High-School Teachers
A. Board of education or committee of the board appoints teachers without official participation by the superintendent	1.8	.8	1.1
B. Superintendent takes initial steps by nominating candidates	47.2	45.0	47.2
C. Superintendent makes the appointment, to be confirmed or rejected by the board	24.0	26.3	24.6
D. Other methods and procedures	2.7	3.0	3.0
Combinations of methods	24.3	24.9	24.1

Approved practice accords to the principal an active role in filling vacancies on his staff. Describing "steps" in the technique of organizing a senior high school, Cline [2] mentions "selection of personnel" as first:

> The principal should be consulted in this matter; he should be interested enough in getting the personnel he wants, sufficiently well informed in the

---

[1] Deffenbaugh and Zeigel, *op. cit.*, p. 78, Table 24.

[2] E. C. Cline, "General Technique of Senior High School Organization," *Educational Administration and Supervision*, XI (April, 1925), 245–250.

manner of engaging teachers, and able to present his needs so clearly and convincingly, that he *will be* consulted.

Such a privilege is consistent with the administrative concept of holding the principal responsible for the conduct of his school. In the selection of teachers, as in the exercise of other functions, there must doubtless be some degree of uniformity enforced for the entire district; economy and efficiency dictate the establishment of but one personnel office and some consequent centralization. The spirit of such an arrangement, however, may and should be one of service rather than one of restriction or domination.

Obviously, one reason why the principal should play an important part in choosing teachers for his school is the fact of his intimate acquaintance with the positions to be filled. The larger the school system, the more important becomes this factor, since the superintendent and his assistants can have less and less acquaintance with the details of any position. It should be taken for granted that the principal can make a more adequate examination of candidates for a particular position than the central office can; he has more exact knowledge of the qualifications required.

With regard to actual practice in the location of responsibility for teacher selection, two studies are quoted. Figure 27, from the National Survey of Secondary Education,[1] shows that in schools enrolling fewer

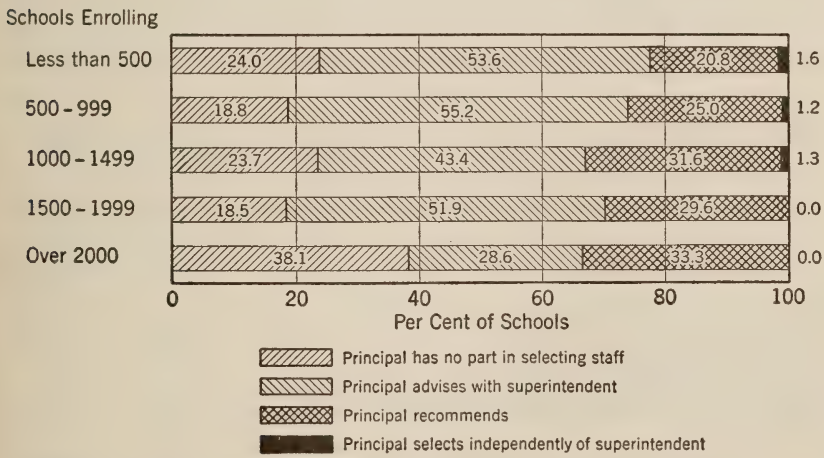

FIGURE 27. Extent of Participation by Secondary-School Principals in the Selection of Their Staffs

than 2000 pupils, the principal plays a significant part in this function in approximately four fifths of the schools. In schools with higher enrollments, the comparable fraction is slightly less than three fifths.

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[1] Deffenbaugh and Zeigel, *op. cit.*, p. 94, Fig. 9.

Edmonson [1] studied the work of the high-school principal in Michigan and reported:

> We find the majority of the principals in twenty of the larger Michigan high schools performing the following important duties that are usually performed in smaller systems by the superintendent:
>
> 1. Interviewing candidates for high-school teaching positions.
> 2. Selecting for recommendation new teachers to fill high-school vacancies.
> 3. Selecting for recommendation substitute teachers.
> 4. Recommending promotions in positions for high-school teachers.
> 5. Recommending increases in salaries of high-school teachers.
> 6. Recommending suspension and dismissal of teachers.

The detail of Edmonson's statement is helpful in enabling one to grasp main activities involved in determining the personnel of a high-school faculty. It clarifies, also, the types of responsibility in teacher selection which we may expect the secondary-school executive to be capable of carrying, and by implication the responsibility of the superintendent in this field of activity is somewhat defined. The relationships indicated by the six duties enumerated may be looked on as approximating an ideal of professionalization in school administration.

Methods employed. (1) *Locating prospective teachers.*—Candidates for teaching positions are found by the methods named in Table 49, which is drawn from the report of the National Survey of Secondary

TABLE 49

METHODS USED IN LOCATING TEACHERS, WITH THE PERCENTAGES OF JUNIOR-HIGH-SCHOOL and SENIOR-HIGH-SCHOOL TEACHERS NEWLY EMPLOYED FOR THE YEAR 1929–30 WHO WERE LOCATED BY EACH METHOD [2]

METHOD USED IN LOCATING TEACHERS	PERCENTAGES OF TEACHERS	
	Junior High School	Senior High School
Placement bureaus of higher institutions	16.6	21.0
Applications by individual teachers	62.6	47.9
Private teachers' agencies	13.5	20.9
Visits to other schools or systems	2.1	3.8
Visits to higher institutions to interview department heads	2.5	2.1
Other methods	3.0	4.3

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[1] J. B. Edmonson, "What Shall We Expect of the High-School Principal?" *The American School Board Journal*, LXV (September, 1922), 39–40, 121.

[2] Deffenbaugh and Zeigel, *op. cit.*, pp. 33–34, tables 14 and 15.

Education. While the table shows that "applications by individual teachers" constitute the principal source of candidates, there are marked differences in the source, according to the size of community. The larger the city, the greater is the dependence on this source. The smaller cities tend much more to look toward placement bureaus and private teachers' agencies.

(2) *Letters and blanks of application and recommendation; photos.*—Such papers as these sometimes constitute the sole basis for the employing authority's impressions when choosing teachers; they play a very important part in the selection of practically all teachers, for they are almost universally employed. It is accordingly essential that we analyze and evaluate them.

As pointed out in the National Survey,[1] a number of studies of the form and content of application blanks have been made. The items may be classified in six general categories: (1) general information, (2) personal data, (3) educational preparation, (4) educational experience, (5) references, and (6) miscellaneous information. Significant for present consideration is the fact that each school system uses only one blank for all applicants, regardless of the different types of positions to be filled. Accordingly, the information called for is on the whole very general. In view of the emphasis in earlier sections of this chapter on the concept of matching the qualifications of teacher candidates with the detailed specifications of jobs, it is a disappointment to find only 10 of 41 of the largest cities of the country even asking for "majors and minors taken." [2]

As regards reference blanks, 367 were analyzed in the National Survey of Secondary Education and found to present wide variation.

> Of the 367 forms, 29 call only for a general statement concerning the candidate, his fitness for the position for which applying, and possibly one or two more traits. Ninety-eight make provisions either for written answers to specific questions or for written opinions on a list of traits. Some type of check list by means of which the respondent checks certain traits on a scale of from 3 to 10 points is provided on 162 of the forms. Provision is made for underlining the most appropriate term on about 76 forms.[3]

A tabulation of the items appearing most frequently on the reference blanks shows the following, with the percentage of the blanks on which each item appeared: [4]

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[1] *Ibid.*, pp. 43–45.

[2] John A. Nietz, "The Current Use of Teachers' Application Blanks," *The American School Board Journal*, LXXVI (March, 1928), 55–56.

[3] Deffenbaugh and Zeigel, *op. cit.*, p. 47.

[4] *Ibid.*, p. 50, Table 18.

Discipline	84.1%
General statement or remarks	76.8%
Health	73.9%
Scholarship	63.8%
Appearance	63.4%
Skill in instruction	63.0%
Character	54.3%
Would you employ	53.3%
Tact	52.5%

The requirement that a photograph be submitted with the candidate's application for a teaching position is well-nigh universal. That it provides little or no basis for judging fitness for teaching is the conclusion reached in several recent studies.[1]

Tiegs [2] has evaluated all the devices being discussed under this caption, and while the subjects of his measurement were exclusively teachers in the first six grades, there seems to be every reason to believe that the results could be duplicated with secondary-school teachers. Tiegs's method involved the ranking, by 11 principals and supervisors, of 25 teachers randomly selected from a group of 100 who were newly appointed but not at the time yet employed in the Minneapolis schools. With due precautions against untoward influences which might affect the rankings, the rating officers first read all the recommendations, and on that basis ranked the teachers. In the same manner the eleven judges ranked the teachers on their "desirability as teachers" on the basis of their letters of application, their photographs, and finally the combination of recommendations, letters of application, and photographs. In each of these rankings, Tiegs's tables show wide variations between the eleven judges. However, in order to compare these predictive measures with the success later achieved by the teachers, the eleven rankings were combined on each basis. The teachers were then closely observed, as is common with probationary teachers, by two general supervisors, several special supervisors, an assistant superintendent, and their respective principals, from September to April. Official ratings were prepared in the latter month. For these official ratings, Tiegs developed an objective scoring device by which he was enabled to rank the teachers and compare their achieved success with that which was predicted. He found the following correlations between rankings on the predictive measures and his criterion of success:[1]

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[1] *Ibid.*, pp. 55–56.
Donald A. Laird and Helen T. Hance, "Photographs in Teacher Selection," *The American School Board Journal*, LXIV (June, 1923), 48–49.

[2] Ernest W. Tiegs, *An Evaluation of Some Techniques of Teacher Selection*, pp. 36–47. Bloomington, Ill.: Public School Publishing Company, 1928.

1. Recommendations with criterion	+ .08
2. Letters of application with criterion	− .04
3. Photographs with criterion	− .08
4. Composite of recommendations, letters of application, and photographs, with criterion	− .13

On the whole, evidence of the value of these devices of teacher selection is lacking. Reliance on them seems to be unjustified. Unless techniques more refined and more reliable are employed, it seems unlikely that schools whose salary scales imply an exceptional corps of teachers are likely to secure anything but a random sampling of experienced teachers. A number of suggestions can be made, however, which would probably increase the validity of letters of recommendation. It seems, first of all, that a reference blank should be used, calling for information on the salient qualifications needed for successful teaching, so that the referee cannot merely emphasize merits and pass over defects. Furthermore, the devices should be in such a form that the degree to which the applicant possesses each quality may be indicated roughly and without undue difficulty. College teachers, for instance, should be required to testify to scholarship in terms of approximate rank in group. As the requirement of practice teaching has become so general, the hiring authority ought always to secure, in the case of beginning teachers, an adequate statement of the degree of success achieved in that experience. It is very likely the best single measure of probable teaching success.

(3) *Written examinations and tests.*—The National Survey of Secondary Education found that approximately a third of cities with populations of more than 100,000 and about 6 per cent of cities with populations of 30,000 to 100,000 use the written examination as one element in their procedure of selecting teachers. The percentage of smaller cities using this feature was negligible. How valuable is the written examination for this purpose? A study by Boardman[2] gives an answer to this question. His procedure was to prepare, with the secondary-school teacher especially in mind, a test of pertinent professional information and a test of ability "to select procedures to solve specific classroom problems or situations." He then obtained rankings, on the basis of general teaching efficiency, of teachers in four medium-sized and large

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[1] *Ibid.*, p. 46.

[2] Charles W. Boardman, *Professional Tests as Measures of Teaching Efficiency in High School.* Teachers College, Contributions to Education, No. 327, 1928.

high schools, and gave them the tests and also a psychological examination. Correlating the rankings in teaching efficiency with those in the tests, his conclusion is that "The correlation coefficients are so low that the tests, singly or in combination, are of small value in predicting the efficient high-school teacher as determined by the criterion." [1] While the tests might mean more if given to teachers not already so highly selected, the groups to whom they were given doubtless parallel quite closely those to whom tests are now being given by large cities, and the use of such devices for selection is thereby discredited.

Aside from their apparent lack of value as a means of distinguishing the best teachers, it seems that a possible danger in the use of the examination as a means of selecting teachers for high schools might be the tendency to give positions to high-ranking applicants without sufficient regard for all the special qualifications necessary. High-school positions vary so largely that properly equipped applicants for any given position probably are not numerous.

(4) *The personal interview.*—The school executive tends to rely very considerably on his own oral examination of candidates for positions. It is customarily considered that the intangibles of character and personality can best be weighed in the face-to-face contact of the interview. While scientific studies of the interview in teacher selection have not been made, the known lack of value of the interview in choosing salesmen [2] is calculated to disturb any complacent assumption of the efficacy of this device.

Apparently not much thought has been given to appropriate interview technique, the National Survey of Secondary Education finding that only about 28 per cent of superintendents of city school systems had devised definite techniques.[3] A Pennsylvania superintendent of schools makes some practical suggestions which seem to merit quotation. He states the following four principles of interviewing: [4]

> 1. Keep control of the situation by carefully judging the quality of the salesmanship used by the candidate as distinguished from his quality as a teacher.

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[1] *Ibid.*, p. 65.

[2] Donald A. Laird reports a study in which experienced sales managers interviewed and then ranked candidates for positions as salesmen. Correlations between the rankings were very low, showing wide variations in the managers' judgments of the men. Furthermore, the actual sales records achieved by the men gave them a ranking which differed widely from those made by the sales managers. *The Psychology of Selecting Men*, pp. 102–107. McGraw-Hill Book Company, Inc., 1925.

[3] Deffenbaugh and Zeigel, *op. cit.*, p. 66.

[4] M. A. Steiner, "The Technique of Interviewing Teachers," *The American School Board Journal*, LXXVI (June, 1928), 65–66.

> 2. The interview must be entirely free from personal embarrassment on the part of the applicant. . . . Make every applicant so sure of a fair hearing that he can satisfactorily present his best qualities.
>
> 3. . . . The person interviewing applicants should be able to visualize or list the qualities which a successful teacher must have in the position which he is desiring to fill.
>
> 4. A final principle of efficient interviewing requires the superintendent to use a list or an outline of qualities on which he desires to be informed and a score card of some kind for recording the results of the interview.

In connection with the fourth principle Steiner points out that, of course, "it is absolutely essential that the applicant shall not be conscious of the fact that he is being marked," but that the entire record should be made up immediately after the interview, while impressions are fresh. The practical necessity of such a step is self-evident when we realize that interviews are likely to be scattered over a period of several weeks and sandwiched in among many other types of administrative duties; the interviewer simply cannot rely on his memory for the adequate impressions he must have if he is to rank the candidates.

Steiner attempts to form impressions on about twenty items, classified under "Personal Appearance," "Character Traits," "Mental Qualities," and "Professional Qualities." For each item, he lists across the page three adjectives, to express the range of desirability, thus forming a sort of graphic rating scale on which the interviewer may record his impressions by checks.

Another example of interview procedure is reported by W. Hardin Hughes as employed in the Pasadena school system.[1] Each candidate who presents an acceptable application and whose physical fitness is proved is interviewed independently by at least three members of the personnel committee for the specific purpose of checking on personal qualities. A ten-point rating scale is used for recording impressions on the following traits: grooming, voice, sex character, refinement, forcefulness of personality, versatility of mind.

It seems probable that many hiring authorities are proceeding rather blindly, placing an unjustified reliance on their ability to judge a teacher by a few minutes' office conversation. The pitfalls in interviewing should be clearly recognized, and pains should be taken to use the interview in a carefully controlled manner.

(5) *Visiting teachers at work.*—That the administrator should actively seek out teachers instead of merely choosing from the list of applicants

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[1] "How to Select the Best Teachers," *The Nation's Schools*, XIII (January, 1934), 36–39.

would seem to be an obviously desirable policy. Considering the large fraction of the yearly budget which is expended for instruction, there should be no question about the desirability of using some money and time to hunt up good teachers and of visiting them to observe their work. After such observation, a chat with the teacher in his own classroom about what he is attempting to do, the pupils in his class, his equipment for the course, and his methods of teaching will undoubtedly reveal the teacher far better than the customary interview, when the applicant dresses up and goes to the office of the hiring authority.

According to the National Survey of Secondary Education, 42.2 per cent of superintendents report that they employ visitation as a policy in teacher selection, 16.6 per cent say that candidates are sometimes visited, and 41.2 per cent say that visitation is not used. The superintendent is the person most frequently making the visit, with the principal to whom the teacher is assigned being the second most frequent visitor.[1]

THE MEASUREMENT OF TEACHING

An administrative responsibility. While the measurement of teaching efficiency may be regarded in part as a supervisory function, a device employed to effect the improvement of instruction, it is an indispensable preliminary to the exercise of the administrative function of teacher selection, with which this chapter is concerned. The whole problem of keeping the school effectively staffed rests on the assumption that we can distinguish between good teaching and poor teaching and also recognize gradations between the two extremes. The initial selection of teachers, the decision to retain or to release probationary teachers, the promotion and dismissal of teachers—the successful exercise of all these functions depends on the degree of accuracy with which teaching merit can be measured.

Forms of measurement. As one aspect of the whole scientific movement in education, recent years have witnessed a number of attempts to displace the subjective judgment of teaching worth with valuations expressed quantitatively and objectively. Mention may first be made of pupil accomplishment as the true measure of a teacher's efficiency. In elementary schools the development of objective standardized tests has given some impetus to the utilization of such a measuring stick. No attempts to employ it in secondary schools have been made, however, because tests for measuring pupil progress have not been developed there to the same extent as in the lower school. Furthermore, even in elementary grades it is freely conceded that there are vastly important educational aims for which we as yet have no devices for objective measurement. For these reasons any extended treatment here of pupil growth as an index to teaching efficiency is not deemed feasible.

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[1] Deffenbaugh and Zeigel, *op. cit.*, pp. 67–71.

A second form of measurement with which there has been experimentation is the objective test of teaching ability. Boardman's attempt to devise such an instrument and his conclusion concerning its inadequacy have been reported in the preceding section. Other experiments have not been more successful.

The rating scale is the only form of evaluation of teaching efficiency to attain wide vogue, and it has but slight claim to the quality of objectivity. While a wide variety of scales has been developed, the essential feature is a list of traits, qualities, or attributes which the scale maker considers essential to successful teaching and on each of which the rater gives his estimate of the teacher. A frequent assumption of the scale is that with reference to the possession of any trait teachers distribute themselves in accordance with the normal curve of distribution. The following extract of two items from a scale by Tiegs illustrates a common type: [1]

	A	B	C	D	E
PERSONAL APPEARANCE	Unusually attractive; neat; wholesome		Ordinary; not conspicuous		Unkempt; slovenly
SPEECH	Voice unusually pleasant; excellent enunciation; fluent		Ordinary; sufficient; upholds own end of conversation		Voice thin, high, harsh; enunciation indistinct; speech defect

Defining each trait in the extremes and in the median improves the chance of a common understanding by all raters.

A feature of some rating cards is the provision for numerical equivalents for the rating on each quality and a total numerical score on the basis of 100 or 1000 possible points.

The basic reason for the variation in rating scales is that no one has been able to determine by a scientific procedure just what the essential attributes of a good teacher are, not to mention the relative importance of the attributes. Consequently, the elements of a rating scale are arrived at subjectively. This being the case, it is only natural that each school system should make its own rating scale, and the plea of some experts for co-operation of teachers and administrators in determining the form any particular scale is to take [1] is justified for the sake of securing a happier relationship when the subjective instrument of measurement is applied.

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[1] Ernest W. Tiegs, *op. cit.*, p. 58.

Extent and manner of teacher rating. Figure 28,[2] representing questionnaire replies from a large number of cities, indicates that rating scales are employed in nearly half the cities. The direct relationship between the size of the city and the prevalence of this practice may be attributed quite plausibly to a felt need for such devices in systems so large that the superintendent and his assistants lack those frequent contacts with teachers which are characteristic of the smaller school systems.

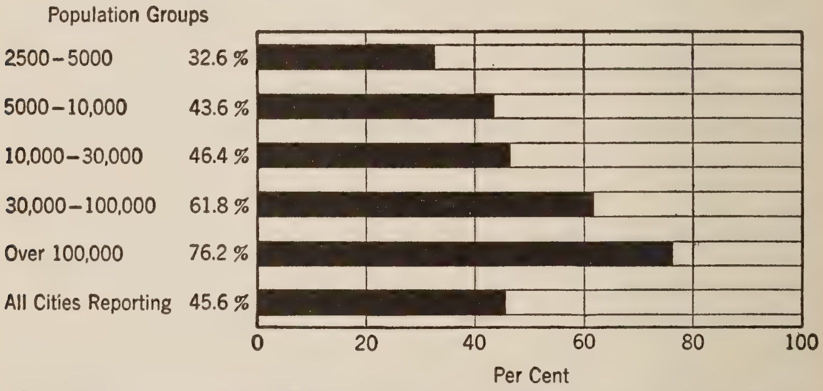

FIGURE 28. Percentages of Cities in Different Population Groups Which Practice Rating the Quality of Teaching Service

Responsibility for the task of rating rests on the principal in all cities which employ rating scales, according to King,[3] who obtained data on practices from 92 superintendents in cities of more than 25,000 population. The performance of this function rests on the superintendent in 70 per cent of the cities, and on various types of supervisors, assistant superintendents, and heads of departments in smaller percentages of the cities.

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[1] W. S. Gray, "Rating Scales, Self-Analysis, and the Improvement of Teaching," *School Review*, XXIX (January, 1921), 49–57.

[2] Adapted from "Administrative Practices Affecting Classroom Teachers, Part II: The Retention, Promotion, and Improvement of Teachers," *Research Bulletin of the National Education Association*, X (March, 1932), p. 65, Table 24.

[3] LeRoy A. King, "The Present Status of Teacher-Rating," *The American School Board Journal*, LXX (February, 1925), 44–46.

Another important consideration in the use of rating scales is the number of individuals who rate each teacher. In the following division of this section of the chapter, devoted to an evaluation of rating scales as instruments of administration, the significance of this practice is discussed. Facts gathered by a committee of the National Education Association from a large number of cities make it evident that in the majority of cities teachers are rated by one, two, or three individuals, with two as the modal practice. The number of raters tends to decrease with decrease in the size of the city.[1]

Evaluation of teacher rating. Summaries of progress of the teacher-rating movement sound a rather pessimistic note concerning the value of these instruments for administrative purposes. Symonds [2] concludes a thoughtful discussion with the comment that "These remarks are not very helpful to the administrator who wishes to select a new teacher. Nothing can be definitely said at the present time. Neither can anything positively be said about determining teaching merit for the purposes of promotion, bonus awards, etc." Thayer [3] points out that rating scales are not designed to furnish the data sufficient as a basis for discharging a teacher.

> In large school systems the matter of outright discharge is becoming more and more complicated and difficult. It would seem that an intelligent supervisor who actually works with his teachers, understands them, and has their confidence would be in a position to consult with a teacher who is a manifest failure and convince him to change his occupation of his own free will. When that does not avail, definite and concrete data must be collected, which no rating scale affords.

For determining promotions, also, it is Thayer's opinion that the measurement afforded by a rating scale needs so much supplementation that the scale is of little value, since usually the position to be filled calls for very definite qualities frequently not directly measured by any rating system.

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[1] "Report of the Committee of One Hundred on Classroom Teachers' Problems—Teacher Rating," *Proceedings of the National Education Association*, LXIII (1925), 200–215.

[2] Percival M. Symonds, "The Measurement of Teaching Efficiency in High School," *Educational Administration and Supervision*, XIII (April, 1927), 231.

[3] V. T. Thayer, "Teacher-Rating in the Secondary Schools," *Educational Administration and Supervision*, XII (September, 1926), 374.

In any case the rating card supplies but a fraction of the required data, and it would seem that the information regarding promotions they yield hardly justifies the labor involved and the by-products they entail in the way of annoyance, apprehension, and suspicion.

As to salary increases, "payment on the basis of merit is impossible." If an attempt is made to use a rating scheme for that purpose, Thayer feels it raises a barrier between supervisor and teacher and disrupts the sympathetic and co-operative relationship which is the first essential in successful supervision.

Some analysis of rating scales and their use seems to indicate that their value is limited because of defects which inhere within the scales in their present state of development and because of a lack of training for their use. Concerning the first of these shortcomings, it has already been pointed out that being unable to measure with accuracy the educational product, namely, desirable changes in pupils, we have resorted to measuring various attributes of the teacher and various activities of the teacher and the pupils. With little scientific knowledge available concerning the relationships between these attributes and activities on the one hand and educational results on the other hand, the elements which comprise rating scales are for the most part subjectively originated. For the same reason they are likewise subjectively weighted, wherever any weighting scheme is attempted. That any attempt to assign numerical values to each of the items of a scale is of doubtful worth is attested to by innumerable common-sense judgments that teachers have failed completely because of a lack of this or that single quality. On the other hand, the discerning observer will agree with Ruediger [1] that "the supreme work of a teacher is quite often dependent on only one point of real excellence, all the others being mediocre or even less." The teacher's total score, therefore, might not indicate his success or failure. Trow takes sharp issue with the attempt to analyze and weigh factors in teaching, saying,[2] "the whole is something quite different from its summated elements. . . . It is the total pattern of the personality which counts, how the various characteristics harmonize with each other and with their social setting which determines the effectiveness of the teacher."

A further weakness of the rating scales as now developed lies in their lack of refinement for the measurement of teaching efficiency in the existing wide variety of teaching situations. Most commonly a school system adopts one rating card for the evaluation of all teachers from the kindergarten through the high school. The same card is checked for teachers of typewriting, teachers of primary reading, and teachers of literature in Grade XII. It follows that the items on which the teacher is rated must be stated in general terms and that, even so, not all will apply in any given teaching situation. The rater must make a much more detailed analysis than appears on the card. As it seems impossible to prepare a score card for each subject and for the different types of teaching situations which arise within each subject, we must frankly recognize that each rater will have and should have detailed standards in mind and that the subjectivity of the instrument will vary as greatly as do the situations to which it is applied. While the rating card was introduced because of our desire for an objective and accurate appraisal of teaching success, that goal is not at present attainable.

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[1] W. C. Ruediger, "Rating Teachers," *School and Society*, XX (August 30, 1924), 267–268.

[2] William C. Trow, "How Shall Teaching Be Evaluated?" *Educational Administration and Supervision*, XX (April, 1934), 269.

With regard to defects in the *use* of rating scales, Symonds's generalizing comment [1] is: "All the cautions, pitfalls, and drawbacks that apply to rating in general apply with full force to the rating of teachers." Among the common causes of error in rating, research has disclosed the following: the failure of raters to have a common understanding of the traits to be rated; the "halo effect" (influence of a pre-formed general impression on the rating of the various constituents of teaching ability); a tendency to overrate, especially when something depends on the rating; the attempt to give a rating without sufficient knowledge of the ratee. Positive guides to practice which are calculated to overcome or avoid these errors have been stated in Chapter VI.

While teacher-rating schemes have not been developed to any satisfactory degree as yet and there are many who feel that they are more of a liability than an asset to administrative procedure, it is hardly desirable or possible to abandon them. It is to be hoped that the brief treatment afforded in this chapter makes clear the necessity for careful study of rating technique by the rater in order that the pitfalls may be avoided. Further to offset the weakness of any rating system, it is apparent that a rating should be the average of several ratings made by different officers, if possible, or of several independent ratings made by one officer. Rating on the basis of a single visitation can have but slight validity. It is apparent, too, that many of the attributes on which a rating is commonly given can only be judged after a considerable period of association. A rating card cannot take the place of a thorough acquaintance with the teacher rated. It is apparent, also, that rating accurately requires time—time for analytical thinking. The halo effect is probably largely accounted for by the fact that the rating is too hurriedly done. Finally, a study of teacher-rating plans and their actual results must convince anyone that a rating card cannot be a substitute for the rater's own extended training in values and techniques in all the subjects, his possession of a modern point of view in education, common sense, an analytical mind, and a sense of justice.

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[1] *Op. cit.*, p. 221.

PROBLEMS OF DISMISSAL AND TENURE

The present status. It is clear that the maintenance of an efficient teaching staff occasionally involves dismissal as well as selection of teachers. Exercise of this unpleasant function, in all fairness to teachers and to pupils, is to be guarded against by all possible means. Care in selection is obviously the first of such means; adequate supervision, aimed at the improvement of teaching efficiency, is a second; and teaching on probation before obtaining tenure is a third. Even with these helpful procedures, however, the fact remains that teachers present a great range of individual differences; their success or failure cannot be accurately predicted; the best supervisor fails to effect an improvement; and some teachers, at first successful, gradually deteriorate in efficiency for various reasons or commit some act of immorality or indiscretion which completely nullifies their usefulness in the school. The welfare of the pupils demands that every effort be made to render dismissal unnecessary, but there are times when this duty must be faced courageously and performed intelligently and efficiently.

Preceding portions of this chapter have shed some light on the function of dismissal by giving data to show its importance as a cause of turnover and by giving analyses of the causes of teacher failure. Holmstedt [1] says:

> Contrary to prevailing opinion, the New Jersey tenure law has not reduced the amount of dismissal to a marked degree. The occurrence of dismissal is changed, however, in two ways; a larger percentage of beginning teachers are dismissed, and at the same time dismissal is practically eliminated among teachers who have been placed on tenure. It is more difficult for the beginning teacher to secure a position, but once tenure is secured there is little prospect of dismissal.

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[1] Raleigh W. Holmstedt, *A Study of the Effects of the Teacher Tenure Law in New Jersey*, p. 100. Teachers College, Contributions to Education, No. 526, 1932.

Brief examination of the reasons why teachers fail reveals that failure is a relative matter and that a judgment of failure is dependent on the subjective standards of each judge. How weak in discipline must a teacher be to be classed a failure? How poor must be the teacher's technique to warrant his dismissal? Indeed, we may even ask, when is a teacher sufficiently "immoral" to deserve his separation from the school? Communities, school boards, and school administrators show considerable variation in answering these questions. Any consideration of the problem of dismissal shows that it is primarily but a phase of the baffling problem discussed in the preceding section of this chapter—the measurement of teaching efficiency.

With the increasing professionalization of the teaching body, there has come a growing sensitiveness on the part of teachers to controls from without and an ambition to achieve a status similar to that of the professions of law and medicine, which are characterized more largely by controls from within. Naturally, this professional consciousness has been particularly aroused at arbitrary dismissals; it has aimed especially at curtailment and restriction of the right of boards of education to dismiss teachers; it has sought by legislation and otherwise to achieve greater security of tenure. State and national associations of teachers have pointed out many instances of dismissals, and also appointments, resulting from no consideration of teaching merit but from political reasons. They have urged, also, that even well-intended lay control has worked havoc in many school systems because there were no restrictions to limit the passing of lay judgment on professional competency.

The movement to obtain a larger measure of recognition of the teaching profession has made considerable progress, as attested to by the growing number of state and local tenure laws [1] and by the voluntary practices of many school boards in appointment and dismissal. In some localities, it has been discovered that the pendulum has swung too far in the direction of guaranteeing teacher tenure. The safeguards around the teacher's position have been made so strong that incompetent and inefficient teachers are protected. When the dismissal of a teacher can be accomplished only by judicial processes, it proves virtually impossible to remove him. Superintendents and principals find themselves put on trial and subjected to unwelcome notoriety. If the final outcome is the legal reinstatement of the teacher with full back pay, the administrator gives up the attempt to oust incompetent teachers.

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[1] Cecil W. Scott, *Indefinite Teacher Tenure*. Teachers College, Contributions to Education, No. 613, 1934.

The majority of teachers of the country are now serving under one-year contracts,[1] a form of tenure which is upheld by those who wish to have the way made easy for dispensing with the services of a teacher, but regarded unfavorably by most students of the problem of tenure.[2] The present goal of the teaching profession of the country is apparently well represented by a statement of twelve principles for the control of tenure formulated by the Tenure Committee of One Hundred of the National Education Association. Those which bear on the most crucial questions of tenure are the following: [3]

> 5. Indefinite tenure should be provided after successful experience during a probationary period of adequate length, usually two or three years. . . .
>
> 6. The right of dismissal should be in the hands of the appointing board. . . .
>
> 7. Laws establishing indefinite tenure should provide for the easy dismissal of unsatisfactory or incompetent teachers for clearly demonstrable causes; such as misconduct, incompetence, evident unfitness for teaching, persistent violation or refusal to obey laws, insubordination, neglect of duty, or malfeasance. . . .
>
> 8. The proposed dismissal of a teacher on account of incompetence or neglect of duty should be preceded by a warning and specific statement in writing of defects. . . .
>
> 9. In cases of proposed dismissal, teachers should be granted the right of hearing. . . . For the sufficiency of the reasons for terminating the contract the superintendent and the board should be the sole judge, without the meddling of lawyers or the interference of the courts. The hearing should be so organized that legal technicalities will be reduced to a minimum. The vote should be by a majority of members of the board of education, not by a majority of a quorum.

These principles give evidence of experience with both extremes in tenure and resulting dissatisfaction. If put in operation, they would relieve the teacher of the fear of being unceremoniously and mysteriously cast adrift at the end of the year and yet spur him with the necessity of continued competency. They do not, however, take account of the influence on staff problems of economic depression or of decreasing enrollment.

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[1] The percentage distribution of teachers according to the state tenure laws under which they are employed is as follows: No legislation, or annual election plan, 54; tenure granted after a probationary period, 23; continuing contract laws, 6; all others, including unclassified, 17. From "A Handbook on Teacher Tenure," *Research Bulletin of the National Education Association*, XIV (September, 1936), 177.

[2] I. L. Kandel, "Tenure of Service of Teachers," *Teachers College Record*, XXVI (October, November, 1924), 129.

[3] Fred M. Hunter, Chairman, "Teacher Tenure in the United States," *Proceedings of the National Education Association*, LXV (1927), 211–212.

Some principles to be followed in dismissal. The preceding paragraphs have made it evident that procedure in dismissal of teachers will vary to a considerable extent according to legal restrictions or lack of them.[1] Regardless of legal strictures or opportunities, it is evident that dismissal should be governed by principles grounded in the ethics of the profession, in common justice, and in a proper consideration for the welfare of the school. In the exercise of this function, the principal should play an important part. The duty of determining when a recommendation for dismissal should be made, and then making it, must be thought of as included in the general administrative concept that the principal should be held responsible for the conduct of his school. For the guidance of the head of the school in doing his part, the following principles are suggested. They are framed primarily with the incompetent teacher in mind, the type most difficult to dismiss and yet most numerous of all the types deserving dismissal.

1. Ordinarily, dismissal on the charge of incompetency is not to be considered until all possibilities of improvement through helpful supervision have been exhausted.

2. The principal will keep in such close touch with instruction and all the activities of his school as to be able to detect a marked weakness in any teacher at an early date. He will then take measures to remedy the situation before it becomes worse, not try to close his eyes to it or assume fatalistically that it cannot be helped.

3. The principal will test as completely as necessary his own expertness as a supervisor, regarding the teacher's difficulty as a challenge to his capacity as a helpful leader, just as the expert teacher regards the problem pupil as a challenge to his ability.

4. If remedial measures fail, other competent supervisors should be called on for assistance.

5. Supervisory contacts certainly should make it clear to the teacher long before a resignation is requested that improvement is expected if the teacher is to be retained, but a warning to that effect should also be made in writing.

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[1] For extended discussion of legal aspects, see Newton Edwards, "The Law Governing the Dismissal of Teachers," *Elementary School Journal*, XXXIII (December, 1932, January, February, 1933), 255–267, 365–376, 434–446. See also Lee O. Garber, "The Law Governing the Dismissal of Teachers on Permanent Tenure," *Elementary School Journal*, XXXV (October, 1934), 115–122.

6. If there seems to be no remedy, the principal should talk frankly with the teacher about resigning and seeking another career, endeavoring to convince the teacher of the wisdom of such a course.

7. If the teacher resists the suggestion of resigning, and dismissal must be resorted to, the principal must clearly recognize his responsibility for the accumulation and presentation of evidence. Wherever opinion in the matter of competency must be depended on, there should be agreement between two or three recognized supervisors who have made observations. The evidence must be as objective as possible.

8. At all times the procedure should be so characterized by a disposition to consider the welfare of the school as paramount, by the spirit of fairness, and by a proper regard for the situation and the feelings of the teacher that the incident may have only a wholesome psychological effect on the teaching staff.

No more trying situations arise to vex the administrator than those concerned with this step in the improvement of the teaching staff. By greater attention to the first choice of teachers, however, their dismissal can be obviated; accordingly, it is to the exercise of this aspect of selection that this chapter has been primarily devoted. Since the bulk of school money is paid out in salaries to teachers, the administrator cannot well regard teacher selection as a side issue. He is justified financially and educationally in devoting a great deal of attention to the search for teachers who test to his detailed specifications.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Ask 25 junior-high-school or senior-high-school teachers of your acquaintance, representing a number of different school systems, just how they obtained their positions in the systems in which they are now teaching. Classify and tabulate the procedures reported; then criticize and evaluate them.
2. Study the certification laws of your own state and criticize them in the light of standards developed in this chapter.
3. For evidence of their recognition of the teacher-training function, search the catalogues of all the institutions of your state which train high-school teachers. Classify, tabulate, and criticize the evidence. Have the institutions set up more refined requirements than the state?
4. List in some detail the elements which should appear in the general and specialized training of the teacher of general shop; of French; of social science; of any other high-school subject.

5. To acquire some firsthand evidence of the extent and incidence of turnover, interview 25 junior-high-school or senior-high-school teachers who have taught in at least one school system in addition to the one in which they are at present engaged. Find out detailed reasons why they left previous positions, especially questioning for a full analysis of the reason, "for better position."
6. Prepare blanks of application and reference.
7. For any one high-school department prepare a score card for measuring teaching efficiency.
8. Prepare a card for recording impressions gained in interviews with applicants.
9. Plan several questions you would ask in an interview with an applicant for a position in the natural-science department, assuming that you have already perused the applicant's papers. Plan similarly for a position in any other department.
10. For any state make an analysis of its laws and judicial decisions bearing on teacher tenure.

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Chapter X

Adjusting the Teaching Load

NATURE AND IMPORTANCE OF THE PROBLEM

Relation to educational expenditures and educational results. What constitutes an appropriate load for the teacher is not a new question, but the rising tide of secondary education, with an attendant broadening of the curriculum and general extension of school service, has brought such rapidly mounting school costs as to focus an increased measure of attention on this problem. The recent financial distresses of the schools sharpened the demand that costs be held down or reduced, despite mounting enrollments. The taxpayer watches the educational expenditure, often applying a dollars-and-cents gauge, as in the case of an automobile factory or a packing plant.

Of another view is the teacher, who is most favorably situated for observing the educational product. When a greater quantity of work is demanded, he insists that it can only be accomplished at the expense of the quality of the product; that if the number of pupils put through the mill is increased, the educational change effected in each will be decreased. In this contention the teacher is backed by college authorities who are more concerned with quality than with quantity in the high-school output.

Amid these conflicting forces, the principal will hold that the education of the pupil is the paramount criterion for his guidance. In maintaining this standpoint and in conveying it to others, however, he labors under a severe handicap, namely, the lack of objective measurement of the educational product. He has no dollars-and-cents gauge on output, as he has for investment. Indeed, he must again and again labor to convince superficial thinkers that the output is *not* measured by a mere count of the boys and girls who are being graduated from the high school. Despite this basic difficulty, the administrator must formulate policies and make decisions regarding the teacher's load. In carrying on this function he needs all knowledge available concerning the various factors which determine the load.

Existing standards. In the general movement toward standardization of the high school it is to be expected that accrediting agencies will not have overlooked the necessity for some definition of the teacher's load. A recent statement of the pertinent standard in the North Central Association of Secondary Schools and Colleges is as follows: [1]

> *Standard 8.—The Teaching Load.* An average enrollment in the school in excess of thirty pupils per teacher shall be considered as a violation of this standard.[2]

Clarifying this standard is the following recommendation: [3]

> The Association recommends the following as norms: (1) Pupil-teacher ratio, 25 to 1; (2) the number of classes taught by the teacher, 5 daily; and (3) the total number of pupil-periods per day, 150 per teacher.

Brownell has summarized [4] the recommendations with respect to the proper teaching load in a number of school surveys. He found the recommendations seldom going further than to advocate an average and a limitation on the maximum pupil-hours per week. Two or three suggested a smaller number of pupil-hours per week for teachers of English and laboratory science. "Casual inspection of the standards would lead one to assume simple arithmetical computation to be all that was necessary for determining the burden of teachers." [5]

Inadequate as these standards are, they have undoubtedly helped to stabilize the high-school teaching situation. Extremely wide latitude, however, is still left for the particular school or school system, as is made evident in data that follow.

The complexity of factors determining the teaching load. To give an overview of those determinants of the teacher's load which have been most recognized in educational literature, Brownell's survey is drawn on for Table 50.[6] It suggests the complexity of the administrative problem involved. Not only are the principal and the superintendent concerned. Some factors are largely determined by the board of education and their immediate public. State legislation and the policies of the state department of education figure in a number of factors. In the fuller definition of these constituents to which the remaining sections of this chapter are devoted, both immediate and ultimate administrative responsibility must be borne in mind.

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[1] "Policies, Regulations, Standards, and Recommendations for Accrediting Secondary Schools" (Adopted April 13, 1935), *North Central Association Quarterly*, X (July, 1935), 99.

[2] During depression years the Association permitted certain schools to claim exemption from this standard on submitting documentary evidence of financial inability to employ more teachers. See H. G. Hotz, "Trends in the Development of Secondary Schools," *North Central Association Quarterly*, X (January, 1936), 292.

[3] *Op. cit.*, p. 100.

[4] S. M. Brownell, *The Working Hours of Secondary School Teachers in Connecticut*, pp. 4–6. Doctor's thesis on file in the Yale University Library, 1926.

[5] *Ibid.*, p. 6.

[6] Adapted from Table II, p. 9.

TABLE 50

FACTORS SUGGESTED IN THREE OR MORE EDUCATIONAL WRITINGS AS HAVING A POSSIBLE EFFECT ON TEACHING LOAD

Factor	Number of Authors Mentioning
1. Size of class	29
2. Number of classes taught daily	27
3. Subject taught	15
4. Pupil-hour load	14
5. Extracurricular duties assigned	8
6. Whether or not classes be duplicate sections or separate courses	8
7. Grade in which subject is taught	7
8. Amount of clerical work required	7
9. Total number of pupils assigned	6
10. Length of recitation period	6
11. Adequacy of the salary	6
12. Nervous strain	6
13. Experience of the teacher	5
14. Number of periods of study-hall supervision assigned	4
15. Sex of the teacher	4
16. Method of teaching used	3
17. Training of teacher	3
18. Pleasantness of surroundings	3
19. Ease or difficulty of discipline	3

CURRENT PRACTICE IN ADMINISTERING THE TEACHER'S LOAD

Number of daily recitations. One method of describing the instructional load of the teacher is to refer to it as the number of recitations conducted daily or weekly. In sections where regional associations or state departments of education exercise marked influence, the better schools conform somewhat closely to the standard above, quoted from the North Central Association. In 1934–35, according to Hotz,[1] 2.4 per cent of all teachers in that association were teaching more than six classes daily.

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[1] H. G. Hotz, "Trends in the Development of Secondary Schools," *North Central Association Quarterly*, X (January, 1936), 292.

As is well known, teachers in small schools typically teach more classes a day than do teachers in large schools. Figure 29 conveys some impressions of the practice in small schools. It is based on data gathered from Pennsylvania and California during pre-depression years, and it shows the inverse relationship between size of school and the number of classes in a teacher's load, as well as the contrast between two states.

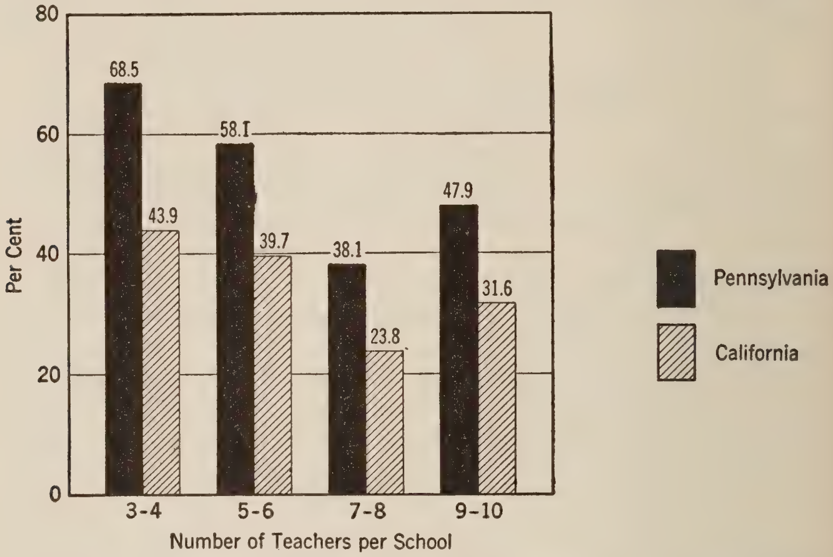

FIGURE 29. Percentages of Teachers Teaching More than Five Classes a Day[1]

Size of class. Pupil-teacher ratio. "What is the proper size of section?" is a question raised by Ballou[2] in a 1914 publication, following a series of tables which showed great variation in the size of class sections in New York City high schools. The same question is still before us, and the increasing costs of education have given impetus to a more diligent and more insistent search for the answer. A scientific approach to the problem has been made by many investigators and at all levels of instruction—elementary, secondary, and collegiate—but with inconclusive results. A finding common to many of these studies has been that such results as can be measured by objective tests or teachers' marks are about equally good in large sections and in small. While this outcome has been accepted by a few administrators as justification for increasing the size of classes, most of them have been unwilling to take such a step, feeling that the experiments have not tested for important educational objectives. The more thoughtful school leaders are now assigning teaching loads on the assumption that the size of class may well vary with subjects, methods of instruction, abilities of teachers, and abilities of pupils. The studies of class size have no doubt induced a more refined consideration of all these elements of the instructional situation as factors in the teaching load.[1]

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[1] From P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, p. 24, Fig. 3. Reproduced by permission of The Macmillan Company, publishers.

[2] Frank W. Ballou, *High School Organization.* World Book Company, 1914.

Regardless of studies of efficiency, the size of classes has been increasing. "The average size of classes in senior high schools was twenty in 1914; twenty-seven in 1928; and it is still going up."[2] In Table 51 Hotz gives a partial picture of the pupil-teacher ratio in the North Central Association in 1934–35.[3] Evidently there is a direct relationship between size of school and number of pupils per teacher; and while the total percentage of schools violating the North Central Association standard of 30 as the pupil-teacher ratio is not large, it must be recognized that the proportion of pupils being educated in these larger schools is much greater.

TABLE 51

PUPIL-TEACHER RATIO IN HIGH SCHOOLS OF THE NORTH CENTRAL ASSOCIATION, 1934–35

SIZE OF SCHOOL	PERCENTAGE OF SCHOOLS WITH PUPIL-TEACHER RATIO OF:	
	26–30	More than 30
Under 200	8.0	1.3
200–499	29.3	4.7
500–999	51.4	12.1
1000 or over	54.2	31.1
All schools	28.1	7.9

Other studies of practice in size of class could be drawn on to show that wide variation exists within most schools, that junior high schools usually have larger classes than senior high schools, and that the size of class commonly decreases from Grade IX to Grade XII. The latter phenomenon is probably explained by the larger number of electives open to the more advanced pupils.

Number of pupil recitations per teacher. The voluntary regional associations have set up a standard for the teaching load in terms of pupil recitations per day, 150 or 160 being the maximum. Data based on the Hotz study of high-school teachers of the North Central Association are presented in Table 52, showing teaching load measured in this manner.[1] Comparing the last pre-depression year with the year 1934–35, the extent to which the years of economic stringency have brought about an increase in teaching load is evident. The large percentages of teachers shown in each year as teaching fewer than 141 pupil recitations suggests that if Hotz had used the ten-point interval to effect a complete distribution, the variation among teachers would have been marked. Evidence of wide differences within a single school system was produced in the Philadelphia survey.[2] The variation apparently is more marked within departments than among departments, although a recent extensive study showed that teachers of academic subjects were typically exceeded in their pupil-recitation load by teachers of music and physical education, and that their load in turn slightly exceeded that of teachers of practical arts.[3]

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[1] William A. Wetzel, "Large-Group Instruction," *School Review*, XXXIX (April, 1931), 288–292.

[2] William G. Carr, "New Angle of Attack Needed in Class Size Research," *The Nation's Schools*, X (November, 1932), 27.

[3] H. G. Hotz, *op. cit.*, p. 292.

TABLE 52

PERCENTAGE DISTRIBUTIONS OF HIGH-SCHOOL TEACHERS OF THE NORTH CENTRAL ASSOCIATION ACCORDING TO THEIR DAILY LOAD OF PUPIL RECITATIONS

YEAR	PERCENTAGES HAVING DAILY LOADS OF:			
	Fewer than 141	141–150	151–160	More than 160
1929–30	75.14	8.36	6.09	10.41
1934–35	59.38	9.43	7.95	23.23

According to the pupil-recitation basis of measuring the teacher's load, there is a wide difference between large and small high schools, favoring teachers in the smaller schools. In a survey of conditions in Kansas, OBrien [4] found that "The median pupil-hour load of teachers in schools having thirty or more teachers is nearly twice as large as in schools having not more than ten teachers." According to Ferriss, all other factors in the teaching load must favor the large high school, for he says that "The only bright spot in the teaching load in the small high school is the small number of pupil-hours for the teacher."[1]

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[1] H. G. Hotz, "Five-Year Trends in the Development of the North Central Association High Schools, 1930–1935," *North Central Association Quarterly*, X (January, 1936), 296.

[2] Pennsylvania State Department of Public Instruction, *Report of the Survey of the Public Schools of Philadelphia*, Book II (1922), pp. 113–120.

[3] "Teaching Load in 136 City High Schools," *City School Leaflet* No. 9, United States Office of Education, June, 1923.

[4] F. P. OBrien, "The High School Teaching Load and Preparation of High-School Teachers," quoted editorially in *School Review*, XXXV (May, 1927), 327–328.

Number of different subjects taught by individual teachers. An obvious factor in the teaching load is the number of distinct subjects which the teacher's daily schedule imposes on him. In recent years a number of studies have been made to determine what the actual conditions are in various states or sections of the country and to suggest steps to improve the teacher's load in this particular. In Pennsylvania an extensive study by Heiges showed conditions to be as indicated in Table 53.[2] From these data it appears that only in small high schools does the teacher frequently have more than one subject in his load. The contrast of Heiges's findings with some other studies may be attributed to his classification of all sciences as one subject and to his handling of the social studies in the same manner.

TABLE 53

PERCENTAGE DISTRIBUTIONS OF PENNSYLVANIA TEACHERS ACCORDING TO THE NUMBER OF SUBJECTS TAUGHT IN 1926–27

NUMBER OF SUBJECTS TAUGHT	TEACHERS IN SCHOOLS HAVING FACULTIES OF:		
	30 or more	11–29	3–10
1	89.5	81.0	45.2
2	10.2	18.3	45.9
3	0.3	0.7	8.6
4	0.0	0.03	0.3
Total	100.0	100.03	100.0

Potthoff's research, based on 3490 teachers in the 525 public four-year high schools in the state of Illinois—schools which had no more than twenty teachers and which were accredited by the University of Illinois—presents the different picture shown in Table 54,[3] page 386. Relatively few of the teachers in this study give instruction in one subject only, and appreciable percentages teach from five to eight subjects. Science is shown as eight different subjects, while the social studies are listed as civics, economics, and history. Undoubtedly these more refined classifications largely account for the contrast between the Potthoff study and the Heiges study.

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[1] Emery N. Ferriss, "Some Important Problems of the Small High School," *Bulletin* No. 20, The National Association of Secondary-School Principals, March, 1928, p. 59.

[2] J. S. Heiges, "How Many and What Subjects Should a High-School Teacher in Pennsylvania Be Prepared to Teach?" *School Review*, XXXVIII (April, 1930), 290, Table II (adapted).

[3] Edward F. Potthoff, "Teaching Combinations: Reductio ad Absurdum," *School Review*, XLIII (June, 1935), 424, Table IV.

TABLE 54

PERCENTAGE DISTRIBUTIONS OF TEACHERS OF EACH OF SIXTEEN SUBJECTS ACCORDING TO NUMBER OF SUBJECTS WHICH THEY TAUGHT

Subject	Number of Teachers of the Subject	Percentage of Teachers Teaching: One Subject	Two Subjects	Three Subjects	Four Subjects	Five to Eight Subjects
Biology	294	3	35	39	19	4
Botany	65	0	6	25	41	28
Chemistry	155	2	37	44	14	3
Civics	224	1	20	41	24	14
Economics	200	0	20	44	21	15
English	1026	33	44	18	4	1
French	131	4	58	35	3	0
General science	397	3	37	38	18	4
Geology	85	2	16	37	26	19
History	610	8	42	34	11	5
Latin	501	6	65	22	6	1
Mathematics	719	23	37	26	11	3
Physics	305	0	30	47	18	5
Physiology	110	4	25	34	30	7
Speech	49	4	59	27	6	4
Zoology	84	0	11	28	40	21

It is obvious that the number of different subjects in the teaching load varies inversely with the size of the school. The smaller the number of teachers, the less can their tasks be specialized. Since beginning teachers typically are inducted into the profession through small schools, this factor in teaching load works to their disadvantage.[1]

Number of daily preparations. To say that a teacher gives instruction in English may mean that he daily meets five sections of freshmen pursuing the same course of study; or it may mean that he daily meets two sections of pupils of Grade IX and one section each of grades X, XI, and XII. In the one case, "teaching English" means making one preparation daily; in the other, it means making four preparations daily. Obviously, we have here a factor in teaching load. It operates with special severity in the case of beginning teachers. Anderson [2] found that nearly nine tenths of first-year teachers in Ohio make three, four, five, or six daily preparations, with approximately equal percentages in each category.

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[1] Earl W. Anderson, "The Teaching Load of the Beginner in High School," *Educational Research Bulletin* (Ohio State University), VII (October 3, 1928), 280–281, 291–292.

[2] *Ibid.*, p. 281.

The subject combinations constituting teachers' loads. From Table 54 (page 386) it may be seen that the subjects vary in the frequency with which they are combined with other subjects in the teaching load. Since the table includes only academic subjects, it does not show what has been demonstrated in a number of studies, namely, that all the special subjects are usually taught singly rather than in combination.[1] Neither does the table show to what extent combinations are recurring and to what extent chaotic.

Table 55 [2] gives some detailed evidence on this aspect of the teaching load. It shows the most frequently recurring combinations in small high schools of Pennsylvania. Almost four fifths of the teachers studied in that investigation were teaching more than one subject, yet the total of the frequencies shown in Table 55 is less than one third of the teachers. This means that almost half the teachers were giving instruction in a wide variety of subject combinations, each occurring no more than three times in the whole group.

TABLE 55

SUBJECT COMBINATIONS OCCURRING FOUR OR MORE TIMES IN THE TEACHING LOADS OF 331 PENNSYLVANIA HIGH-SCHOOL TEACHERS IN FOUR-YEAR HIGH SCHOOLS WITH FROM 3 TO 10 TEACHERS

COMBINATIONS	TIMES OCCURRING
Two-subject	
English — Latin	11
English — French	8
English — history	4
English — social science	4
Mathematics — Latin	5
Mathematics — physics	4
Mathematics — commercial subjects	6
Latin — French	7
Latin — Spanish	4
History — social science	15
Three-subject	
English — Latin — French	7
English — history — social science	12
Mathematics — history — social science	4
Chemistry — biology — general science	4
Physics — biology — general science	4
Four-subject	
Chemistry — physics — biology — general science	8
Total	107

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[1] For example, see Heiges, *op. cit.*, pp. 293–295, Table V.

[2] Adapted from P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, pp. 36–37, tables X, XI. By permission of The Macmillan Company, publishers.

Other researches afford similar findings. Potthoff said of conditions in Illinois, "the conclusion is inescapable that the picture afforded by this study of teaching combinations is one of all but complete chaos." [1] However, there is evidence in Table 55 of some tendency to assign the teacher subjects which are closely allied. This tendency is more marked in larger schools. Among the circumstances which tend to block the exercise of this principle is the teacher's lack of all-around training for these cognate subjects, a problem which was discussed in Chapter IX. It is perhaps true that some of the weird combinations to be found are due to the weird training of the teachers. The principle, however, is probably frequently neglected because it is not recognized or because of various difficulties in assignment.

Difficulties in assignment. When we consider the task of adjusting the programs of all teachers in a given school so that each teacher will have approximately the same burden, so that every class will have a teacher of adequate specific training, and so that each teacher's load shall either be in one subject or in subjects closely allied, it is apparent —especially to those who have tried to discharge this function—that there arise many determinants of the teacher's load which do not appear in academic discussions of the task. Many of these factors of the practical situation, with the relative frequency of their appearance, have been disclosed in a portion of Hutson's investigation of the specific training of teachers.[2] With a special interest in analyzing fully the reasons for the frequent hiatus between teachers' training and the subjects they were teaching, Hutson sent a special inquiry to the principals of those Pennsylvania and California high schools from the staffs of which he had received complete returns of teaching assignment and semester-hour preparation for teaching. He studied the daily program of each school in order to locate those subjects which were being taught by teachers of inadequate preparation, assuming as a minimum standard of adequacy twelve hours of training in the college department corresponding to the subject being taught. To each principal in whose school such deficiencies appeared, a letter was addressed, asking him to state the reasons why the particular subject assignment was made. The tabulation of the responses, together with a percentage distribution of their frequency of mention, appears on the next page in Table 56.[3]

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[1] *Op. cit.*, p. 427.

[2] *Op. cit.*, Chap. VII.

[3] From P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, pp. 171–172, Table LI. By permission of The Macmillan Company, publishers.

TABLE 56

Percentage Distribution of Reasons Why Subjects Are Assigned to Teachers Whose Specialized Preparation Is Inadequate for Teaching Them

Reasons for Assignment	Per Cent (222 Frequencies)
I. Preparation of the teacher considered adequate because of:	
A. Training in high school	2.3
B. Practical experience	3.2
C. Teaching experience	6.8
D. Teacher is now studying in that field, or intends to prepare in the field	2.3
E. Training (character and source not given)	5.0
F. "Most logical teacher for it"	.5
G. Original report of preparation was in error	1.4
H. College preparation sufficient because of hours in related subjects	5.9
I. Personality of teacher, personal qualifications, etc.	5.9
J. Self-trained	2.7
K. Travel	.9
II. Teachers' preferences, negative and positive	13.1
III. Hiring method	
A. Done too late to get teacher with right combination	2.7
B. Teacher hired for personality and influence	.5
C. Hired by school board without inquiry into special training, or for nonprofessional reasons	1.8
IV. Principal takes what is left	3.2
V. Subject assignment of preceding teacher passed on, regardless of training of successor	1.8
VI. No reason given	3.6
VII. Decided to give course after teachers had been hired	.5
VIII. Not enough teachers on staff	1.8
IX. Teacher had vacant period at time that it was desirable to schedule class	.5
X. Other teachers had maximum load and no one else to take it	18.5
XI. School too small for a specialist in the department	1.4
XII. No teacher had special preparation	9.5
XIII. In order to maintain a logical combination of:	
A. Natural science	2.3
B. Social studies	1.8
C. English and French	.5
D. Vocational mathematics and shop	.5
Total	100.9
A. Preparation considered adequate (I-A to K)	36.9
B. Reasons (II–IX) Primarily Remediable by the School Administration	29.5
C. Reasons (X–XIII) Primarily Remediable by the Teacher-Training Agencies	34.5

Under the first rubric of Table 56 have been grouped all those expressions of the principals which could be considered as attempts to defend the assignments on the grounds of the teacher's fitness. It is evident from the second category of reasons that teachers' preferences play a considerable part in determining teaching assignments. Hutson's explanation is: [1]

> In some cases it was plain that the teacher was given opportunity to choose; in others he apparently pressed his preference for a given subject despite the superior preparation of other members of the faculty or his own superior preparation in a field he was not teaching; again, the statement was negative, that is, the assignment was made because the other teachers or some particular teacher would not teach the subject.

Concerning the significance of the tenth category of reasons, appearing more frequently than any other, Hutson says: [2]

> It suggests the need of many teachers who are prepared to teach several subjects and the existence of many "odds and ends" in the schedule (one or two class sections more than the teacher of a given subject can handle). Typical statements from which the forty-one frequencies were drawn are: "Only teacher available for this subject without overloading other teachers and leaving Miss L. with a very light course." "Miss D. was given history to even up the amount of work." "Crowded schedules of history teacher." "Only available one." "Teacher trained in history overloaded."

The twelfth reason, under which were classified nearly 10 per cent of the responses, differs from the tenth in that it refers to the fact that *no* teacher on the faculty had the necessary specialized preparation, and points again to the necessity of having teachers trained in several subjects. Of the thirteenth group of reasons, Hutson says: [3]

> [It] is evidence that a number of principals sense the desirability of maintaining logical combinations of subjects in their assignments and would utilize teachers so trained.

The list of reasons given in Table 56 reveals the varied character of the factors which the administrator must take into account or does take into account in determining the teacher's load. There is considerable evidence of inadequate appreciation of some of the principles which should be determinants; on the other hand, there is evidence of the extreme difficulty of the task, the large number of factors beyond the principal's control, and an earnest effort to cope with the problem in a professional way. The summary at the foot of the table represents an effort to classify the reasons primarily on the basis of responsibility for them. But these groupings, as Hutson explains, are by no means clear-cut. An examination especially of the third category in the summary (reasons X–XII) must lead us to admit that the elimination of small schools through consolidation would go far toward eliminating such deplorable factors in determining the teacher's load. Hence these reasons are to be considered remediable by school administration through school and district organization as well as by teacher-training agencies. We must look to state legislatures and to state departments of education for a more favorable organization of secondary education in this particular.

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[1] From P. W. Hutson, *The Scholarship of Teachers in Secondary Schools*, p. 173. By permission of The Macmillan Company, publishers.

[2] *Ibid.*, p. 174.

[3] *Ibid.*, p. 175.

While the data employed in this section to portray difficulties in assignment as a factor or a group of factors governing teaching load have been taken from an investigation of small high schools, let it not be assumed that they inhere merely in the small-school situation. The same factors may be found operating as strictures in large high schools, but they are troublesome with decreasing frequency as one goes from small to large schools. In general, their existence is less and less to be condoned with the increasing size of schools; but every principal recognizes from first-hand experience many of the factors in Table 56.

Length of day and length of periods. How long the school day shall be and how long the period of each class meeting shall be are questions affecting the teaching load which the school administration must answer. Present practice varies considerably. Table 57, page 392, is based on data gathered by the National Survey of Secondary Education.[1] All types and sizes of secondary schools were included in this investigation, selected for analysis because of their outstanding practices in registration and schedule making. Size of school seemed to be unrelated to length of period or number of periods, but separate junior and senior high schools showed more tendency toward longer and fewer periods, while junior-senior and unreorganized schools inclined toward shorter and more periods.

Hotz has recently reported a trend toward the long period among schools of the North Central Association.[2] He found that in 1924 the percentage of schools operating on schedules with class periods of 55 or more minutes was 24, while in 1934–35 the corresponding percentage

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[1] Adapted from B. Lamar Johnson, "Registration and Schedule Making," Part II of *The Program of Studies*, pp. 323–324, tables 26 and 27. National Survey of Secondary Education, Monograph No. 19. United States Office of Education, Bulletin No. 17, 1932.

[2] H. G. Hotz, "Trends in the Development of Secondary Schools," *North Central Association Quarterly*, X (January, 1936), 290.

TABLE 57

Distributions of Schools According to Length of Class Periods and Number of Periods in School Day

Length of Period in Minutes	Number of Schools	Number of Periods in Day	Number of Schools
35	4	4	1
40	60	5	17
45	35	6	68
50	27	7	36
55	31	8	50
60	14	9	5
65	2	10	1
75	1		
Average length of period in minutes. . 47.2		Average number of periods. 6.8	

was 38. That a lengthened period of direct contact with the pupils—both through the extension of the recitation hour and the extension of the school day—is to be regarded as an important increase in the teaching load is certainly evident from the frequently voiced opposition of teachers to any such proposal. The extent to which it actually operates to increase the teacher's working hours per week is not known. What is more important, we do not know whether it operates to effect a larger number of learnings in the individual pupil.

Number of pupil personalities. Another factor in teaching load is the number of different pupils who are committed to a teacher for education during any given semester or year, together with the frequency and adequacy of the teacher's contacts with his pupils. The customary practice in senior high schools and in unreorganized schools has been to administer practically all subjects five times a week, and teaching load has been thought of in such terms. The junior high school in some communities, however, has been organized so that many classes meet one, two, three, or four times a week and the pupil is taught by eight to twelve teachers. Typical of such school programs is that of the Wellesley (Massachusetts) Junior High School, in which the studies are administered through 205 classes, of which 99 meet once a week, 27 meet twice, 11 meet three times, 37 meet four times, and 31 meet five times.[1]

Hutson [2] has analyzed this administrative practice in its effect on teaching load by a study of the situation in the junior high schools of

[1] P. W. Hutson, "The Junior High School," p. 59, Table No. 20, in *Wellesley School Survey*, C. E. Prall, Director. School Survey Committee, Wellesley, Mass., 1935.

[2] P. W. Hutson, "A Neglected Factor in the Teaching Load," *School Review*, XL (March, 1932), 192–203.

Johnstown, Pennsylvania. Table 58,[1] dividing the teachers into three groups according to their subject fields, presents some interesting contrasts. By the most common instrument for measuring teaching load—pupil-recitation hours—the teachers of academic subjects have nearly twice as heavy a load as do the teachers of Group II and a slightly heavier load than the teachers of Group III. According to the number of different pupils met, the teachers of groups I and II have approximately equal loads, while those of Group III have more than two and a half times as heavy a load. These contrasts are explained by the other medians shown in the table. The teachers of Group II average half as many pupils to the class as do the teachers of groups I and III, and the classes of teachers in Group I meet twice as often as do the classes represented in Group II and three times as often as those of Group III.

TABLE 58

Medians of Four Distributions of Junior-High-School Teachers

	Group I (83 Teachers of Academic Subjects)	Group II (37 Teachers of Commercial Subjects, Home Economics, and Shop)	Group III (25 Teachers of Penmanship, Physical Education, Fine Arts, Guidance, and Dramatics)
Median Number of Weekly Pupil-Recitation Hours..	831.3	445.8	775.0
Median Number of Different Pupils Taught......	171.3	167.5	445.0
Median Number of Pupils in Classes.............	32.4	16.9	32.7
Median Number of Times a Week that Teachers Meet Pupils in Classes..	5.03	2.58	1.68

To make this factor clearer, Table 59,[2] page 394, shows several elements in the loads of three teachers in the same school. The last column shows how nearly identical are the loads of these teachers when measured by the number of weekly pupil-recitation hours taught; yet the teacher of art teaches almost ten times as many pupils as the teacher of stenography and typewriting and has one tenth as many contacts with his pupils. Insofar as knowing the pupil is essential to educating him, the loads of these teachers stand in marked contrast.

Other factors in the strictly instructional load. Other factors immediately connected with instructional activity are the subjects taught, the year-place of the subjects, the mode of presentation em-

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[1] *Ibid.*, pp. 194–196. Adapted from tables I, II, III.
[2] *Ibid.*, p. 197, Table IV.

TABLE 59

INSTRUCTIONAL LOADS OF THREE TEACHERS

SUBJECT TAUGHT	NUMBER OF DIFFERENT PUPILS IN CLASSES	NUMBER OF TIMES A WEEK PUPILS ARE MET	NUMBER OF WEEKLY PUPIL-RECITATION HOURS
Art	557	1	557
Mathematics	120	5	600
*Stenography and typewriting	61	10	610

* Subjects in Grade X; Johnstown junior high schools include grades VII–X.

ployed, the years of experience of the teacher, and, obviously, the teacher himself. At different points in this presentation of administrative practices the size of school has been shown to be a significant factor. Some evidence of the relative importance of these factors will be given in the studies of the distribution of the teacher's time, which are reported in the following section of this chapter.

Noninstructional factors in the teacher's load. Previous chapters relating to the administration of guidance and extracurriculum activities of the school have made evident the teacher's responsibility for these important elements in the modern secondary-school program. That they are not yet being given proper recognition as a legitimate and important part of the teacher's load is evident to all who have given thought to the problem. In addition to activities falling in these categories are others that may be termed administrative and clerical. Notice was taken of these duties by Ballou as long ago as 1914, in his report of the survey of the New York City high schools. His detailed description of this aspect of the teacher's work fits the present situation in middle-sized and large-sized high schools, as may be judged by the following extracts: [1]

> A general classification of these administrative duties will show that some of them are (1) regular as to amount and distribution of time required, such as hall, basement, yard, and library duty; (2) regular as to distribution of time, but varying as to amount, such as preparation of the daily program, attention to late students, arrangements for regents' examinations, and general charge of the lunchroom; (3) varying both as to amount and distribution of time, such as charge of supplies, textbooks, . . . work as grade adviser, or prefect of class. . . .
>
> Most teachers in the high schools have also charge of an official class. Each official class teacher, as a rule, performs the following or similar functions: . . .

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[1] From Frank W. Ballou's *High School Organization*, pp. 81–83. Copyright 1914 by World Book Company, Yonkers, N. Y.

> 1. Keeping a record of the attendance of pupils. . . .
> 2. Care and distribution of textbooks and supplies. . . .
> 3. Copying records. . . .
> 4. Having charge of discipline of pupils in the official class. . . .
> 5. Disseminating school notices and general information. . . .
> 6. Looking after wardrobes and lockers. . . .
> 7. Counseling pupils about their election of studies and progress in their work, together with other administrative duties.
>
> The official class seems to be a necessary part of the organization of large high schools, because it brings about harmony and unity of action. It seems to be a satisfactory method of bringing the pupils into direct contact with the administrative agencies of the school. But the danger is that these lesser, but none the less essential, duties of an official class teacher will interfere with the real work of the teacher, namely, teaching.

A more recent statement supporting Ballou's point of view is the following from Mort and Stuart: [1]

> The holding to a minimum of clerical work required of classroom teachers is an ever-present consideration in the development of school organization. Every proposal for progress must be investigated not only as to its possible educational results but also as to its probable cost in clerical work required of teachers.

Perhaps many will agree that the only clerical work in which teachers may justifiably engage is that which contributes to their own professional work.

A theme developed by Leonard [2] is of significance in this brief consideration of the whole broad field of noninstructional activities of the teacher, for he dwelt on the need for analyzing what he called the "marginal responsibilities" of professional workers, as contrasted with their "technical responsibilities." Illustrated in the teaching profession, his point of view is simply that the real teacher not only teaches a subject but is counselor and friend to the pupil, studying him as an individual and envisaging him in his entirety, assisting him in his total development, and counseling him in meeting all his problems. In adjusting the load of the teacher, it is to be hoped that principals, superintendents, legislators, and taxpayers will all be increasingly possessed of this genuinely educational point of view.

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[1] Paul R. Mort and Milo H. Stuart, "Economy in Reporting and Recording Pupil Ratings," *Teachers College Record*, XXIX (December, 1927), 194.

[2] R. J. Leonard, "The Need for Analyzing the Marginal Responsibilities of Professional Workers," *Journal of Educational Research*, X (October, 1924), 236–241.

HOW THE TEACHER'S WORKING TIME IS DISTRIBUTED

Total working day or week. The preceding section has portrayed many of the factors which influence the teacher's load and which should be taken into consideration in the assignment of teaching schedule and other duties. It has not, however, presented evaluations of the relative importance of the factors. Such is the purpose of this section.

Evaluations here are made chiefly by considering findings of objective inquiries in the field. These findings are presented in the belief that they afford some guidance in the solution of the problem of adjusting loads, but not with the assumption that they provide the basis of a formula to be applied mechanically to meet all needs in an area of such complex human relationships as are represented in the work of the school.

Virtually the only mode of evaluation which has been employed to date has been that of measuring and analyzing teachers' time expenditure. The principal studies available are drawn on to show, so far as possible, the influence of the varying elements in the teacher's load. For some of these elements which have been discussed at length, no time evaluation is available. A few other elements, not mentioned in the preceding section, are discussed below. It is essential at the outset to recognize the basic limitation of the time-expenditure method of evaluation. Brownell [1] says that a sound method would be to measure the *difficulty* of the teacher's work by the *energy* used per unit of time, and the *amount* of the teacher's work by the *results* obtained per unit of time. Lacking the means for this measurement, we can merely measure *time*. Furthermore, the employment even of this method is not easy. Most of the investigations so made have involved the teacher's keeping a daily record for a week, or for several weeks, of the amount of time devoted to the activities listed on a blank of inquiry. This implies constant watchfulness, strict honesty, and the ability to distinguish and classify activities correctly, on the part of the person reporting.

As far as the teacher's total working day or week is concerned, the time studies are in substantial agreement and show that the average teacher's working time approximates an 8-hour day and a 44-hour week. An unpublished study by Reichard,[2] in which he analyzed reports by 126 teachers in high schools of Minneapolis on time actually spent on all professional activities during one school week, showed an average of 8.3 hours per day for a week of five and a half days, or 9.1 hours per day for a 5-day week. The range was wide, extending on the 5-day-week basis from less than 6 hours per day for some teachers to more than 15 hours for others, with more than three fourths of all between 6 and 11 hours. The average hours of time expenditure found by Frank H. Koos [1] for teachers in smaller high schools of Minnesota was approximately the same as Reichard's median. Studies by Greenan [2] and Cowing [3] yielded similar averages.

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[1] S. M. Brownell, *The Working Hours of Secondary School Teachers in Connecticut.* Doctor's thesis on file in the Yale University Library, 1926.

[2] Reported by Leonard V. Koos in *The American Secondary School*, pp. 641 ff.

Brownell, whose study is the most thorough and the most searching of all the time studies of secondary-school teachers, has computed the range and central tendencies of the professional week of Connecticut high-school teachers to be as shown in Table 60.[4] His medians are appreciably lower than those already cited, but this is perhaps due to the fact that some if not all the other studies included time for professional reading and extension courses. The most striking evidence in Brownell's table is the wide variation in the working time of teachers, which, however, is comparable with the variation found by Reichard, as quoted above. The table shows one teacher devoting more than two and a half times as many hours per week to schoolwork as another teacher, with a range of approximately 10 hours among the teachers who constitute the middle 50 per cent of the distribution. The causes of such differences must be analyzed to provide a basis for recommendations concerning the administration of the teaching load.

TABLE 60

NUMBER OF HOURS FOR A 7-DAY WEEK DEVOTED TO ALL PHASES OF SCHOOLWORK BY 285 TEACHERS, INCLUDING 37 HEADS OF DEPARTMENTS

	Number of Teachers	Number of Hours Per Week				
		Low Extreme	1st Quartile	Median	3d Quartile	High Extreme
Teachers	248	24.0	35.9	40.0	45.3	63.0
Department Heads	37	32.0	34.8	42.8	48.5	56.0
Both	285	24.0	35.9	40.3	45.5	63.0

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[1] Frank H. Koos, "The Load of the High-School Teacher," *The American School Board Journal*, LXV (August, 1922), 47.

[2] John T. Greenan, "The Teacher's School Week," *School Review*, XXX (October, 1922), 598.

[3] Helen H. Cowing, "A Teacher's Time," *School Review*, XXXI (May, 1923), 353.

[4] *Op. cit.*, pp. 46–47, adapted from Table VI.

General analysis of time expenditure. Reichard and Frank H. Koos[1] both summarized the teachers' activities in two large categories, the instructional and the noninstructional. The former includes such activities as preparing lessons, meeting classes, and correcting papers, and the latter comprises such activities as supervision of study halls, library, and corridors, making records and reports, advising students, sponsoring extracurriculum interests, and attending faculty meetings. Both found that the noninstructional activities absorbed nearly a fourth of the teachers' time. Greenan[2] classified teachers' activities into the following four types and found the percentage distribution of time to be as indicated with each type: teaching, 70.6; clerical, 7.1; advisory, 7.0; disciplinary, 15.2. Greenan further showed[3] the extreme variation among teachers with regard to time expenditure on twenty-two types of duties, including practically all of a teacher's possible professional activity except meeting classes.

A writer reporting[4] the distribution of the time of high-school teachers in California computed the time devoted to various types of school duties, not including time spent in class, in medians and standard deviations. Concerning the latter he said: "The 'Standard Deviation from the Average' is usually so large that it is safe to make a general statement that there is no standardization of any factor comprising the teacher's program of weekly work."

Undoubtedly the host of variable elements in the teachers' work accounts for the wide variation found in their total working time. The task of the administrator is clearly to take full cognizance of as many as possible of these variables and allow for them in considering the assignment of duties. To the fuller exposition of a number of the variables the next division of this section is devoted.

Specific analyses to measure significance of various factors in time expenditure. (1) *Size of school.*—In his study of the teacher's time expenditure in small and medium-sized Minnesota high schools, Frank H. Koos found a slightly shorter average day in the larger schools represented in his study, a difference which may be accounted for by a decrease in the time devoted to nonteaching duties.[5] Graves found the working week of teachers in large high schools to be from one and one half to two hours shorter than that of teachers in small and medium high schools, a difference apparently accounted for by a shorter time devoted to "Instruction in class groups" and duties "On account of subjects taught." [1] Consistent with this evidence, also, is Brownell's summary statement that "Increase in size of school is accompanied by a slight decrease in the time."

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[1] *Op. cit.*, p. 47. [2] *Op. cit.*, p. 598. [3] *Ibid.*, p. 594, Table I.

[4] J W. Graves, "Distribution of the Time of High-School Teachers in California," *The American School Board Journal*, LXVII (November, 1923), 48–50.

[5] *Op. cit.*, Table II.

(2) *Length of school day.*—Brownell found that "The median teacher in schools with a five-hour session devotes the same amount of time to schoolwork as teachers in schools with a six-hour session." While it may be that Brownell did not have enough cases to assure a representative sampling of these two types of schools, other data (to be set forth presently) incline us to accept his statement as generally true. Within the time which they control, teachers probably adjust themselves to the length of the session.

(3) *Certain differences among men and women teachers.*—Reichard found that the averages (on the basis of five and one half days per week) for men and women were, respectively, 8.5 and 8.2 hours per day. His data showed that while men devote slightly less time to strictly instructional duties than do women, the difference is more than compensated for by the longer time they devote to noninstructional responsibilities. The data given by Frank H. Koos agree closely with Reichard's, but Brownell reports that "No difference in time was found between sexes." The findings in the Minnesota studies, however, seem not unreasonable, because of the smaller number of men than women employed and the consequently larger burden of supervision of extracurriculum interests of boys.

Two more of Brownell's findings should be stated here. "Men and women who live at home devote slightly less time to schoolwork than men and women who are rooming." Presumably the latter group have fewer distracting influences and interests to compete with professional life. "Married men and single women devote less time to schoolwork than single men and married women."

(4) *Subjects taught.*—Reichard secured his reports of time expenditure on a form which permitted computation of the average amount of time devoted to the class period. To the 45 minutes of the basic period he was able to add the minutes spent per period during the week in preparation, in correction of themes, laboratory notes, or other written work, in conference with pupils enrolled, and for other instructional duties. For more than 3300 periods of instruction he found an average expenditure of time of 77 minutes, which is 32 minutes—approximately

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[1] *Op. cit.*, p. 48.

a half hour—devoted outside the class period to the courses represented. He was enabled to compute the averages for each subject or subject group and thus to evaluate the influence of subjects taught on the teaching load. He found the following averages: English, 99; foreign language, 74; social studies, 92; mathematics, 88; science, 75; commercial, 74; industrial (including home economics), 58. If science recitations only had been considered, the subject would no doubt have stood higher in the group in point of time expenditure; but recitation and laboratory periods were merged and counted equally because of the difficulty of distinguishing them. All subjects in which a laboratory procedure prevails take less of the teacher's time per period, a point which Frank H. Koos has interestingly verified by analyzing separately the time required for each of the commercial subjects. For example, he found that bookkeeping and penmanship required an expenditure of 53 and 55 minutes, respectively, for each 40-minute period, while commercial arithmetic and commercial law each required 97 minutes.

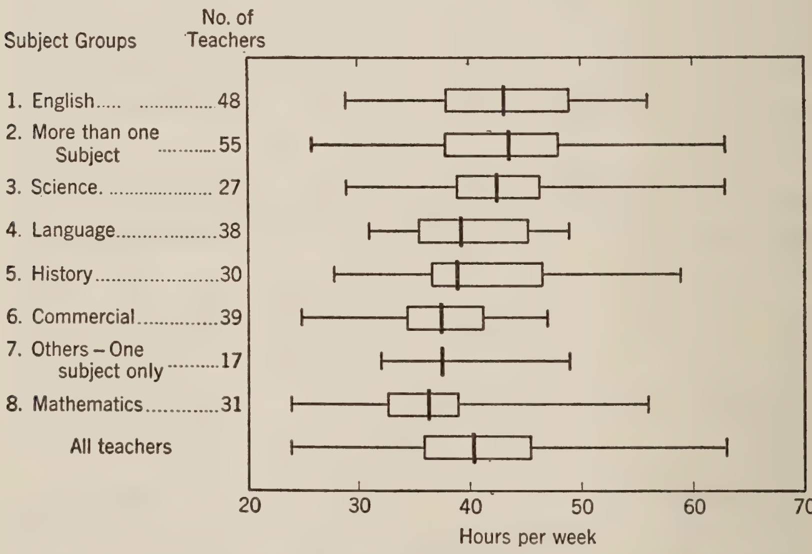

FIGURE 30. Hours per Week Devoted to Schoolwork by Connecticut High-School Teachers, Showing Total Range, Middle 50 Per Cent, and Median for the Teachers of Each Subject or Subject Group

Further evidence of the influence of the subject taught as a factor in the teaching load is afforded by Figure 30, which is based on Brownell's data.[1] This shows the total time expenditure, teachers being classified by subjects. Brownell says, "Principals in several of the high schools providing data for this study took particular pains to state that they attempted to equalize the load of teachers by giving fewer extra duties to teachers of English or one less class to advisers of certain extracurricular organizations, or to equalize the burden otherwise." Despite these efforts, differences exist and are in evidence when teachers are classified according to subjects taught. The medians of the mathematics and English teachers are 7 hours apart. The effect of having to teach a combination of subjects is also noticeable, the 55 teachers teaching "more than one subject" having a higher median number of hours in their teaching week than any other group and 3.3 hours more than the median of all the teachers combined. Surveying Figure 30 again, we must agree with Brownell that a point of great significance is that "the range within groups far exceeds the differences between groups." "While noting the differences between subject groups, it should not be forgotten that there are some mathematics teachers devoting to their work twice as many hours as some English teachers, and that the range within any subject group is approximately three or more times the difference between the median mathematics and English teachers."

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[1] Adapted from Table XIV, p. 58.

(5) *Year-place of subjects.*—Reichard found the average number of minutes of instructional time required for first-year high-school subjects to be 76; for second-year subjects, 75; for third-year subjects, 78; for fourth-year subjects, 84. Appreciable increase comes only with the fourth year, the subject groups most influential in bringing this about being English, mathematics, and social studies. The certainty of year-place of subjects as a factor in teaching load is not clearly established, inasmuch as Frank H. Koos presents figures from his study of 236 teachers in smaller Minnesota high schools which apparently show that the subjects of the last years of the high school do not demand more time than do those of the first years.

(6) *Size of class.*—Reichard grouped the class sections involved in his investigation into three divisions: classes enrolling from 1 to 17 pupils, classes enrolling from 18 to 29 pupils, and classes enrolling 30 or more pupils. With classes thus grouped, he found the average expenditures of time per period to be, respectively, 72, 77, and 84 minutes. There is thus a distinct increase in time corresponding to the increase in size of class, but the average difference of only 12 minutes between the smallest and the largest classes represented exhibits a 17 per cent increase in time for what is perhaps a 100 per cent increase in size of class.

While it may at first appear that these facts discredit the importance ascribed by regional associations to class size, as a basis for adjusting the teacher's load, we cannot be sure; perhaps the individual pupil of the large class is simply getting less educational value than the one in the smaller class.

(7) *Number of pupil recitations.*—The number of pupil recitations apparently has no relationship either to the total time devoted to schoolwork or to the time devoted to teaching duties, according to Brownell. The method by which he arrived at this striking conclusion was to compute the coefficient of correlation between the pupil-hour loads of 227 teachers, for whom he had complete data, and their total time expenditures on schoolwork. This coefficient was found to be .085 ± .067, which signifies an absence of relationship. Brownell thought that a possible explanation for this lack of relationship might lie in the time devoted to noninstructional duties—that those with a low pupil-hour load might be devoting sufficiently more time to those activities not directly connected with classroom instruction to offset a relationship actually existing between pupil-period load and the time occupied with *teaching duties.* He therefore computed the correlation between total time spent on teaching duties and the pupil-hour load. The coefficient was −.032 ± .067. Apparently an undue importance has been attached to number of pupil recitations as a factor in teaching load, when total time expended is considered.

(8) *Concurrent class sections.*—The number of daily preparations required of the teacher was described as an element to be considered in making up the teaching schedule. Reichard found, however, that the average time expended per class period, when only a single section of a course was being taught, was 75 minutes; the averages when concurrent sections were being taught were as follows: two sections, 85 minutes; three sections, 75 minutes; four sections, 80 minutes; five sections, 85 minutes. The relationship seems to be casual rather than otherwise, and it is not in accord with the commonly voiced opinion that teaching a number of sections of the same course tends materially to reduce the teaching load. A similar finding was obtained by Leonard V. Koos in his investigation into the instructional loads at the University of Washington.[1] Brownell's summary statement is: "The number of separate preparations required and the time devoted to schoolwork show no consistent relationship."

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[1] *The Adjustment of the Teaching Load in a University.* United States Office of Education, Bulletin No. 15, 1919.

(9) *Experience of teachers.*—Reichard was handicapped in evaluating the influence of experience on time expenditure because some experience is required for acceptance on the Minneapolis staff. It was possible, however, to inquire into the effect of experience *with the courses* represented. The average time expended for the first year of experience in a course was 84 minutes; for the second year, 94 minutes; for the third year, 74 minutes; and for the fourth year or more, 74 minutes. While the trend is not completely consistent, it is evident that the first and second years' teaching contact with a course entails a higher average expenditure of time than do later years. Frank H. Koos's study of this factor presented no certain trends, and he concludes, "Experience seems to me an uncertain factor in its influence upon the teaching load." Brownell's findings, however, roughly support Reichard's in showing that increase in experience up to about ten years is accompanied by a slight decrease in time expenditure.

(10) *Mode of presentation.*—As was shown above, in evaluating the subject as a factor in teaching load, those periods of instruction by the laboratory method required a smaller time expenditure than those in which the recitation mode prevailed.

(11) *Amount of noninstructional responsibility.*—It is clear to any observer of the secondary school that the noninstructional duties are not equally distributed but to some extent are apportioned to the staff according to the abilities and the interests of the members. The principal makes more or less of an effort to equalize such burdens, even to the extent of adding to or subtracting from the instructional load. That there is a general failure to evaluate the noninstructional duties properly as to the time expenditure which they entail is suggested by the approximate agreement of Reichard and Frank H. Koos in their disclosure of a negligible or almost negligible relationship between the amounts of time devoted to the two main divisions of a teacher's work, instructional and noninstructional duties. If the total burdens of teachers were properly equalized, as one of these divisions increases the other should decrease. This would result in a high negative correlation. However, the Reichard study yielded a coefficient of −.08, and that by Koos, of −.31. It is apparent that more careful consideration must be given to both constituents of the teacher's load in the assignment of duties.

(12) *Teaching efficiency.*—Brownell asked the principals of the schools co-operating in his investigation to select the third of their faculties whom they considered to rank highest in teaching efficiency, and also

the third whom they considered to rank lowest in that respect. When he computed the time expenditure per week of the two groups and also of the middle third, he found that the middle and lower thirds coincided very closely, but that the superior teachers devoted more time to schoolwork, their median being approximately 5 hours greater than those of the other two groups. The overlapping of the three groups, however, seems more significant than the difference mentioned.

(13) *The teacher as a determinant of time expenditure.*—Brownell has pointed to the teacher himself as a potent factor in determining his own load. He divided most of the teacher's activities in connection with schoolwork into three groups, classified according to the *source of control of time expenditure* on each. The categories are as follows:

A. Activities for which the time is largely controlled by the administration
    Classroom teaching
    Study-hall supervision
    Assembly attendance
    Hall and lunchroom duties
B. Activities for which the time is almost wholly controlled by the individual
    Preparation
    Correcting papers
C. Activities for which the time is partially controlled by the administration but to a considerable extent regulated by the individual teacher
    Assisting pupils
    Extracurriculum duties
    Clerical work
    Home-room duties
    Professional meetings and conferences
    Miscellaneous school duties

When he divided teachers on the basis of the amount of time devoted to an activity for which the time spent is almost wholly determined by the individual teacher, such as correcting papers, he found that among the 50 teachers spending most time in correcting papers, 8.0 hours per week was the median time; of the 50 teachers spending least time in that activity, .05 hours was the median time. Comparing the median total time spent on schoolwork by these two groups, he found that the first group spent 11.0 hours per week more than the second. The rest of the time analysis showed that the two groups were spending approximately equal amounts of time on most of their other duties.

Similarly, Brownell found the 50 teachers who spent the highest amount of time on preparation and the 50 teachers who spent the least time on preparation. The median amounts of time spent on this activity by the two groups were, respectively, 10.3 hours and .6 hour per week. The medians of the total time spent on schoolwork by the two groups were, respectively, 48.0 hours and 35.0 hours.

Table 61 re-emphasizes the potency of the teacher's control of his time as a factor in determining total time spent. It will be noticed that the 50 teachers who spent the highest total amount of time vary but little from the whole group or the 50 who spent the lowest total amount of time, when we consider only the activities controlled by the administration. The sharp contrasts which clearly account for differences in total time spent lie in the activities on which the teacher partly or wholly controls his own time.

TABLE 61

Analysis of Total Time Spent on Schoolwork Per Week to Show Influence of Teachers' Control of Their Time [1]

Portion of Activity	Median Number of Hours Spent:		
	By the 50 Teachers Spending Highest Total Amount of Time	By all Teachers (248)	By the 50 Teachers Spending Lowest Total Amount of Time
Total time on schoolwork	50.00	40.00	32.50
Activities largely controlled by the administration	21.46	21.96	22.77
Activities partly controlled by administration and partly by teacher	10.16	5.65	3.24
Activities controlled by the individual:			
1. Correcting papers	6.40	2.10	.20
2. Preparation	8.00	4.40	1.80

From the data presented in the evaluation of the factors entering into the teaching load, it may be judged that the last one described is perhaps most significant of all, assuming, of course, the customary assignments of classes. Differences in professional zeal and in the ability to use time efficiently are undoubtedly factors of the variation in the amount of time teachers spend on their work. Great importance must also be granted to subjects taught and the factor closely connected therewith (namely, mode of presentation), to the number of different subjects taught, and to the amount of noninstructional responsibility assigned. It seems important, also, to hold in mind the lack of significance of number of pupil recitations and of concurrent sections.

[1] Adapted from Brownell, Table XXVI.

APPROPRIATE ADMINISTRATIVE POLICIES SUMMARIZED

Eliminating small high schools. Of the many counts against the small high school, the heavy and varied teaching schedule which it imposes must be regarded as an important one. Whether or not the teacher records an excessive time expenditure, it is only reasonable to assume that the teacher cannot teach four different subjects as efficiently as he can teach one. Administration should correct that condition by establishing schools of such size as to permit a degree of specialization in the work of the staff members. That an appropriate state policy can go far toward achieving this favorable condition has been demonstrated by Proctor [1] in his comparison of the high schools of Oregon, Washington, and California. At the time the study was made, the median school for Oregon was the 2-teacher school and for Washington was the 3-teacher school, while for California it was the 8-teacher school. Proctor's explanation is: [2]

> The effect of the California plan of state aid to secondary schools, combined with the policy of union high-school districts, is herein contrasted with the single-district plan of organization and the different methods of high-school support employed in the states of Washington and Oregon. This comparison is all the more significant because Washington and Oregon may be said to be more or less typical of a majority of the other states in their administration of secondary education.

The prevalence of the union district is to be seen in the percentage distribution of California high-school districts according to type in 1925–26, which is as follows: Regular, 9.7; city, 10.4; union, 68.9; county, 2.8; joint union, 8.3.[3] While the movement for consolidation of both elementary and high-school districts is doubtless making some headway in many sections of the country, it seems as though the change should go forward much more rapidly and generally, especially in view of the recent revolution in highway transportation facilities.

Another means of increasing the size of high schools is the adoption in the smaller communities of the six-year secondary school. Such a measure makes possible a greater vertical extension of the teacher's load and a correspondingly narrower horizontal spread. The advantage is realized even in unreorganized systems by the teachers of home economics, shop, and other special subjects. They teach in both the high school and the upper grades, and most commonly they have no other subjects in their teaching schedules. With reorganization, the size of the staff would be increased, with a consequently greater opportunity for specialization in the division of the teaching load.[1]

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[1] William M. Proctor, "Union versus Single-District High Schools," *Educational Administration and Supervision*, IV (March, 1918), 146–154.

[2] *Ibid.*, p. 146.

[3] Adapted from Leonard V. Koos, *Secondary Education in California*, Report of a Preliminary Survey, p. 30, Table VI. California State Department of Education, 1928.

Stabilizing curriculums and subject combinations. A number of Southern states, faced with the problem of raising standards in large numbers of small secondary schools and with the problem of stimulating the establishment of many more secondary schools, to the end that universal secondary education may be achieved, have in recent years been attempting to effect some standardization of their high-school programs of studies. Bulletins have been issued from several state departments of education, of which that from Virginia [2] may be taken as typical. These bulletins present much detailed suggestion. Not only do they outline curriculums for small high schools of two, three, four, five, six, and seven teachers, but they exhibit daily schedules to show the exact subjects and grades which might constitute each teacher's load. A number of variations are provided for, such as offering home economics and agriculture or not doing so. The bulletins represent a definite attempt to standardize and simplify the teaching load through stabilizing and controlling the combinations of subjects in teachers' programs—combinations based on cognate and related subject matter. While they propose the alternation of certain subjects from year to year in the interest of an adequate curriculum, they provide for such alternation with a view to preserving natural subject combinations in the teachers' loads.

The extent to which the detailed suggestions of these state departments are really workable can be determined only through trial. One can readily think of many factors which influence the subject combinations in teaching loads and which are impossible to plan for except as they actually arise. For example, the logical person to assume the principalship of one of these small schools might at one time be a person trained in English, therefore his teaching load should be in that field; at another time, the most acceptable candidate for principal might be trained in science. This would change all teaching schedules. Such a situation seems unavoidable because principals come from the ranks of teachers of all subjects. However, rather than attempt to conjure up further obstacles to these efforts at state-wide improvement of teaching efficiency through simplification and standardization of teaching load, it is more fitting to commend such complete recognition and detailed study of the problem.

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[1] A test of the extent to which this apparent advantage of the six-year high school is being realized has been made in the state of Indiana. Carefully gathered data lead to the conclusion that is expressed in the title of the study. See J. R. Shannon, "An Unexploited Opportunity in the Six-Year High School," *School Review*, XXXVI (December, 1928), 745–756.

[2] *Manual of Administration for High Schools of Virginia.* Richmond: State Board of Education, 1928.

Fortunately, we need not wait on state recommendation and assistance in the application of the principles discussed under this caption. Every local administrator can and should employ these principles, not only when he assigns the teaching schedule but, as pointed out in Chapter IX, when he selects new teachers.

Subject certification. Discussed at length in Chapter IX as a device for rendering more efficient the performance of the function of selection of teachers, subject certification of high-school teachers needs mere mention here. It is to be thought of as one means of preventing the assignment of a wide variety of subjects to a teacher, especially subjects for which he is not trained.

Considering probable time expenditure in assignment of the teacher's load. In Cowing's study,[1] 25 of the 100 teachers reporting were teachers of English. The median number of classes per week in their loads was 21, while that of the other teachers was 25. Graves found similar evidence of this administrative practice in his study of California teachers. The following numbers of minutes per week were reported as given to "assigned group duties": English teachers, 1163; social-studies teachers, 1225; drawing teachers, 1520; manual-training teachers, 1552.[2] These data show a distinct tendency to recognize that some subjects involve more time expenditure than do others.

Another aspect of the teacher's load which is receiving some recognition in assignment is that of responsibility for extracurriculum activities. The following statement from a survey is an example of the evidence: [3] "In the high school the load is five hour-periods in a six-period day. In cases where the teachers carry a heavy load in connection with the extracurricular assignments, adjustments are made." In some quarters there is apparent an effort to weight the various sponsorships as "major" or "minor" and give them corresponding consideration in the assignment of load. In most of the high schools of the country, however, there is needed a far more intensive consideration than is now prevalent of the time requirements of both instructional and noninstructional duties, and a more refined practice in adjusting these elements in the teacher's load.[1]

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[1] *Op. cit.*, pp. 354–355.

[2] *Op. cit.*, p. 49.

[3] Fred Engelhardt, Director, *Survey Report, Aurora Public Schools, Aurora, Minnesota*, p. 21. Educational Monograph No. 13, Bulletin of the University of Minnesota, College of Education, 1927.

Organizing the school to reduce pupil-personality load. If the teacher is to know his pupils as persons and thereby be able to adapt educational treatment to fit individual differences, the number of pupils entrusted to him for education must be limited. What the appropriate limit should be may be a subject for argument. The practice of many junior high schools, however, of complete departmentalization, of scheduling a number of subjects to meet fewer than five times a week, and of giving to some teachers pupil-personality loads of from 300 to 800 is seriously open to question.

The mildest corrective for this situation is to organize practically all subjects on the basis of five class meetings a week.[2] A more radical step would be such an arrangement of the teacher's load that he would teach the pupil in more than one subject. That policy would be diametrically opposed to the current and almost universally accepted policy of specialization. It might even become a concession to "project" or "situation" teaching, a transformation which has vigorous advocacy from those who argue the unreality of subjects as educational media. A closely related development with rather similar implications for pupil-personality load is the core curriculum and the broader preparation of teachers for which it calls. Space does not permit discussion of the issues involved, but it should be plainly stated that this chapter has assumed the administration of the curriculum through subjects and by subject specialists, and it should be admitted that this *is* an assumption.

Clerical assistance. There is no doubt that practices in the administration of clerical duties vary widely. The clear distinguishing of duties which may be performed by a clerk and the hiring of a clerk to do them has most frequently been urged in educational literature as a measure to free the principal for larger activities. We are here concerned, however, with the employment of clerks and the administration of clerical activity in such a way as to free the teacher for *his* larger duty —that of teaching. Teachers frequently express irritation at the imposition of these burdens. In 1925 the Department of Classroom Teachers of the National Education Association appointed a Committee on the Reduction of Clerical Work. This committee collected data from representative cities of twenty-seven states which they said indicated: [1]

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[1] Douglass has proposed a formula for measuring "teaching load units." It takes account of six factors: (1) subject; (2) number of class periods taught weekly; (3) number of class periods taught weekly which are duplicates of an original class; (4) number of class periods which are spent in co-ordinations (study hall, extra-curriculum, etc.); (5) number of pupil-periods taught weekly; (6) length of period in minutes. See Harl R. Douglass, "Measuring the Teaching Load," *Bulletin of the Department of Secondary-School Principals*, No. 50, March, 1934, pp. 152–159.

[2] See *Wellesley School Survey*, pp. 64–65.

> . . . that even within a single state there is a vast difference in the amount of clerical work which must be done by the teacher. . . .
>
> Your committee requests that through the Research Division of the National Education Association, if possible, a study be made of the amount of time consumed by the classroom teachers in keeping records in their respective schools, and from such a study to ascertain which school systems are able to keep adequate records at minimum expenditures of the classroom teachers' time.

Maxwell reported [2] an investigation in which a number of teachers in a large city high school kept track of the time they spent on clerical work over a number of months, including in the count only work that could be done by a clerk. The amount of time so reported averaged nearly five hours a week. Maxwell recommended the employment of clerks for teachers, perhaps one to every six teachers.

A plausible case for the use of volunteer student secretaries is to be found in Clarence Stegmeir's description of his practice in the Thornton Township High School, Harvey, Illinois.[3] He advocates the practice not only for its saving of the teacher's time but also for the educational value accruing to the secretary.

An obvious principle of good administration in a business house is to assign no duty to an employee on a given salary level which can be performed by an employee on a lower salary level. The same principle should govern the assignment of duties within a school. Boards of education and superintendents must accept this principle because they furnish the different types of workers; principals must accept it because they must exercise the foremanship which utilizes the workers (including themselves) to the best advantage.

Closer inspection of the educational product. After all, what shall be done about the great differences in time expenditure which are due to no other factor than the teachers themselves—their varying capacities and abilities, industry, standards, professional zeal? Brownell says: [1]

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[1] *Proceedings of the National Education Association*, 1926, p. 412.

[2] Paul A. Maxwell, "Clerks for Teachers," *Journal of the National Education Association*, XVII (January, 1928), 8.

[3] "The Student Secretary," *School Review*, XL (April, 1932), 295–301.

> The possibility presents itself of requiring all teachers to remain in the school building for a thirty-six, forty, forty-four [hour], or other definitely timed week, with the assumption that all of the work could be handled satisfactorily in these hours. This would be a closer approximation to the method employed by industry to equalize the time load of employees, and would undoubtedly assure a closer approximation to equality in the time load than at present. The desirability of such a procedure, however, is open to serious question.

Though the remedy mentioned by Brownell has not been applied, one hears frequently of restrictions placed on teachers' time outside school hours. They are sometimes forbidden, for instance, to carry more than a certain number of hours in university courses while teaching. The objective is, clearly, to insure a certain time expenditure on schoolwork outside the hours which are actually controlled by the administration and to prevent unwarranted fatigue. Such measures, however, work unfairly, restricting some teachers but not others, limiting activity in one or two directions but leaving open a multitude of other avenues for time expenditure. They can do but little to achieve the purpose for which they are instituted.

The only sound method of recognizing this varying factor—having equalized the burden as far as possible with regard to the other factors—seems to lie in a closer inspection of the educational product. The administrator must have standards of learning in mind and must check up to see that they are attained. Let neither administrator nor teacher be dominated by a time-serving attitude, but let both be concerned with results. If the brilliant teacher can accomplish in 35 hours what the average teacher requires 45 hours for, there should be no objection. On the other hand, if the pupils are making no progress because the teacher does not prepare lessons or neglects his classes in order to complete "other assigned duties" during the hours he is compelled to remain in the school building, the administrator should know about it and should take proper measures to correct the situation.

Administration of the teaching load means more than a mere equating of the burden of the teachers. It means making such adjustments of it as will secure educational results, and the success of the administrator must be judged according to this criterion. In some schools, to follow this concept the administrator must obtain additional teachers to share the load. He discerns this need as he discerns inequalities in the distribution of the load or as he discerns the shirker on the staff—primarily by watching the educational product.

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[1] S. M. Brownell, *op. cit.*

A final point should be made in connection with consideration of the problem of adjusting teaching loads, a point which arises out of the impossibility of ever arriving at a formula the application of which will settle all questions likely to arise in this area of school administration. After all, the school is a co-operative enterprise in which factors that determine teaching and other working loads may vary from day to day or week to week. In such an enterprise it would be unfortunate indeed if any worker, either administrative officer or teacher, would assume that these loads can be determined or adjusted on a basis that will assure equality or full justice at all times under all circumstances. Only a rough approximation to equality and justice is the best that can be expected; beyond this a spirit of co-operation among members of the staff must prevail to make for an effective school, with all that effectiveness may mean in the way of a contented staff and well-adjusted pupils.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Analyze and criticize the distribution of instructional load and noninstructional duties in some high school. Are inequalities evident without collecting time-expenditure records from teachers? Does the load exceed contemporary standards?
2. List all usual noninstructional duties in a high school of 500 or more pupils. By securing a consensus of opinion of a few experienced high-school teachers, divide the duties into several classes according to estimated time expenditure required.
3. Test the validity of Maxwell's suggestion of a clerk for every six teachers. List the activities that could be performed by such a clerk. Could they be carried on in such a way as to give the clerk evenly balanced days, weeks, and months throughout the school year?
4. For some small community having the 8–4 organization of its schools, plan as accurately as possible the high-school teaching schedule that might obtain if reorganization on the 6–6 basis were effected. Compare with the present teaching schedule.
5. Make a study of some county having a number of small high schools and plan consolidations which are feasible from as many standpoints as possible. How would teaching loads be affected?
6. Ask several teachers of ten or more years of high-school experience to enumerate the subjects they have taught. Tabulate results.
7. Canvass the objective studies of class size. Make a list of the main findings and a list of criticisms and limitations of the studies.

8. In what ways can and should the principal adjust teaching load and teaching conditions to the factor of experience? Whose criticism and what kind of criticism must he be prepared to meet in this connection?
9. Discuss the problem of the day-school teacher who is teaching in night school, especially in the light of this chapter.
10. Is it desirable or practicable to pay teachers according to load? Explain.

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Chapter XI

The Salary Problem

PRESENT STATUS OF SALARIES

Teachers' salaries as influenced by the economic depression. That salary administration plays an important part in the recruitment and retention of an able corps of educational workers may be considered obvious. During the past twenty years this staff problem has been the object of increasingly intensive study. The World War brought a sudden rise in the cost of living, which placed teachers, as also other salaried workers, at a marked financial disadvantage. The industrial boom attracted so many teachers or potential teachers away from teaching that for a time there was a shortage, at least of teachers trained as high as the accustomed standards. Then came the first brief post-war depression in industry, and at about the same time there was a general rise in the level of teachers' salaries. Between 1913 and 1926, boards of education, in response to a wave of public sympathy for the teachers of the land and because of the operation of the law of supply and demand, doubled teachers' salaries. Most of this increase came during the period 1919–1922.

Salaries continued to rise slowly, reaching their highest level in 1930–31. The disorganizing influences of severe and prolonged economic depression then forced widespread salary reductions of varying and, in some cases, calamitous proportions. Figure 31,[1] page 416, shows the salary trend in recent years for cities in five population groups. The average salary of 1934–35 was approximately 15 per cent below that of 1930–31. Restoration of former salary levels had, by 1938–39, regained two thirds of the ground lost. The figure suggests the dependency of teachers' salaries on the swing of the business cycle, but evidently the salaries do not fluctuate so violently as does the volume of business operations. Those who are familiar with the course of the depression in the 'thirties will recognize, also, that changes in teachers' salaries lag behind the fall and rise of business activity.

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[1] "Salaries of School Employees, 1938–39," *Research Bulletin of the National Education Association,* XVII (March, 1939), 75, Fig. I (adapted).

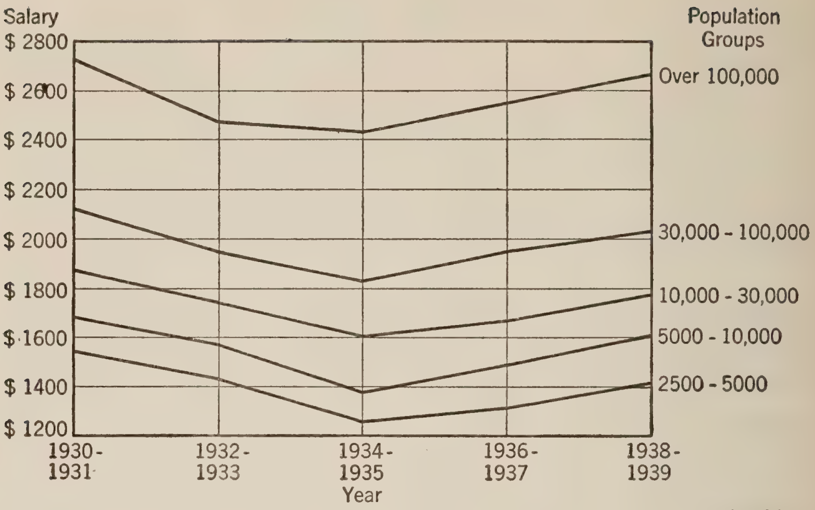

FIGURE 31. Trends in High-School Teachers' Salaries, 1930–31 to 1938–39

The true status of teachers' salaries cannot be understood unless their purchasing power is taken into consideration. Figure 32 [1] presents this corrected perspective. Because of the fall in the price level at

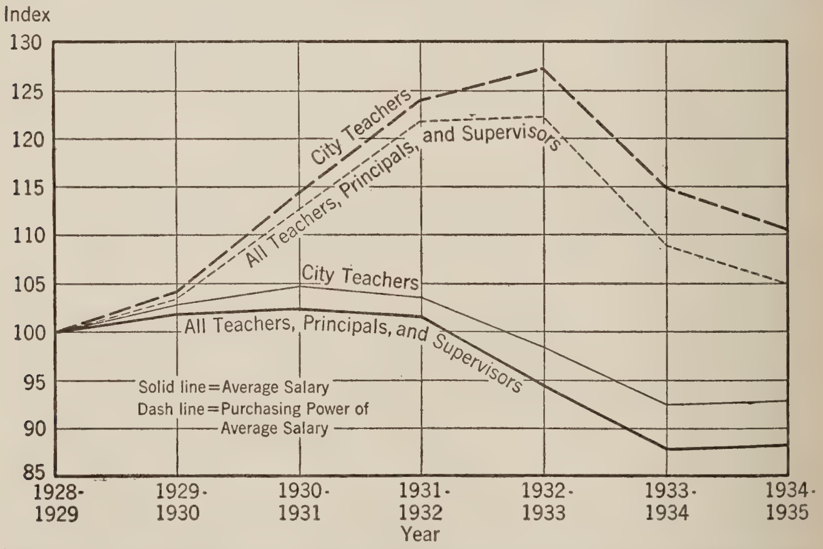

FIGURE 32. Recent Trends in Teachers' Average Salaries and Their Purchasing Power

the depth of the depression (1932–33), the average salary of teachers purchased approximately a fourth more goods then than in the prosperous year of 1928–29. This economic advantage of teachers was partially dissipated by 1934–35. Changes since that date have undoubtedly occurred, as they will continue to occur in the future, making it clear that the reckoning of the teacher's true salary must take the shifting cost of living into account.

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[1] Committee on the Economic Status of the Teacher, B. R. Buckingham, Chairman, "The Teacher's Economic Position," *Research Bulletin of the National Education Association,* XIII (September, 1935), 240, Fig. X.

Comparison with other workers. Further understanding of the economic status of teachers is to be gained from comparison of their incomes with those of other workers. Extensive presentation of such data are not possible here, but Figure 33 [1] is suggestive. For predepression and depression years it affords a comparison of city teachers (all classroom teachers in 65 cities having populations of more than

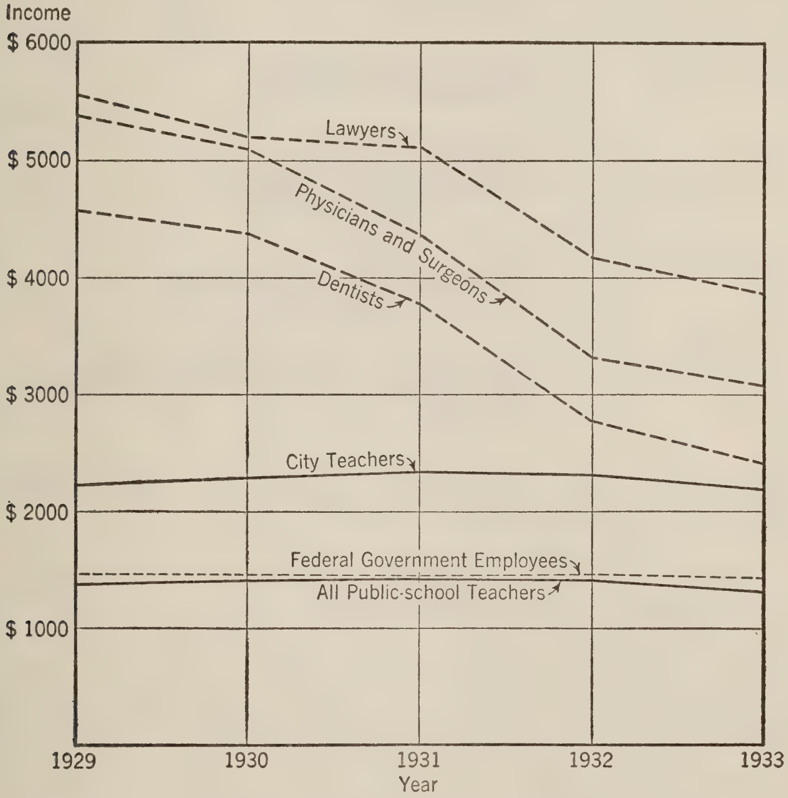

FIGURE 33. Average Annual Income of Public-School Teachers and Certain Other Occupational Groups, 1929–33

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[1] *Ibid.*, p. 244, Fig. XI (adapted).

100,000) and all public-school teachers, principals, and supervisors with three other professional groups and with Federal government employees. The position of teachers is decidedly unfavorable, even though their incomes remained relatively stable during the early depression years. It is true that most lawyers, physicians, and dentists are men and that most teachers are women, but it is nevertheless a fact that the attraction of capable persons (especially capable men) into the teaching profession is difficult when other occupations requiring similar ability and training are so much better rewarded.

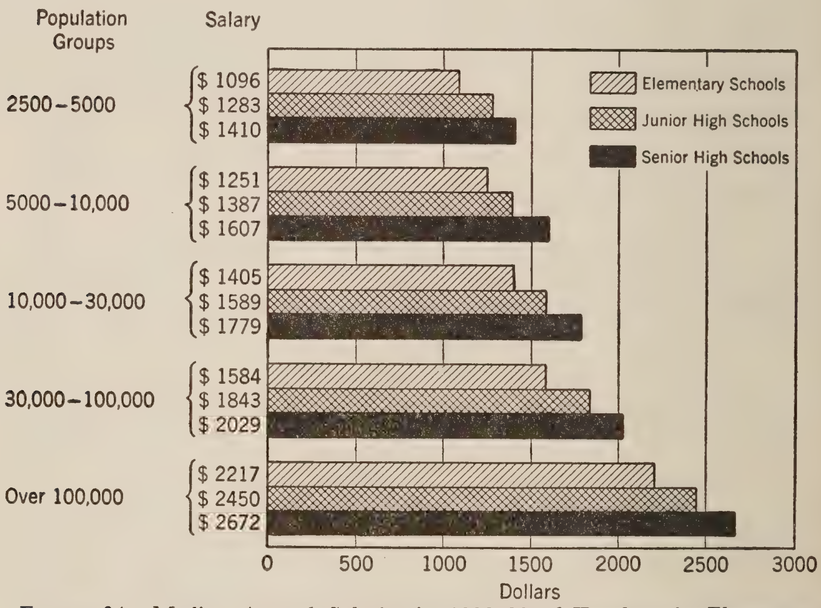

FIGURE 34. Median Annual Salaries in 1938–39 of Teachers in Elementary Schools, Junior High Schools, and Senior High Schools in Cities of Different Population Groups

Teachers compared as to type of school and size of community. A number of the practices in salary administration are evident in Figure 34 [1] or may be inferred when the figure is compared with the data given in Chapter IX. In the first place, there is portrayed a direct relationship between size of community and amount of salary paid to the teachers of all three types shown. The percentages by which salaries in the largest cities exceed those in the smallest cities are as follows: for elementary teachers, 102.3; for junior-high-school teachers, 91.0; and for senior-high-school teachers, 89.5. Certain concomitants of this variation of salaries with size of community come to mind. One is the cost of living. Some exact evidence on this point is presented in the next section. Another is teaching experience. Evidence in Chapter IX [1] shows a direct relationship between years of teaching experience and size of community. Similarly, the extent of the training of teachers increases with the size of city, although not markedly.

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[1] "Salaries of School Employees, 1938–39," *Research Bulletin of the National Education Association,* XVII (March, 1939), 70–74. Adapted from tables 2, 3, 4, 5, 6.

In cities of all sizes the classification of teachers according to type of school brings out a consistent difference in the salaries of teachers of elementary, junior, and senior schools. This may signify that teachers are paid according to the school level at which they teach, or it may signify that they are paid according to extent of preparation. These criteria are explored in the next section.

Some idea of the variation which prevails in salaries, revealing significant practices in salary administration, can be gained from Figure 35.[2] Each bar in this figure represents the range in salary most typically

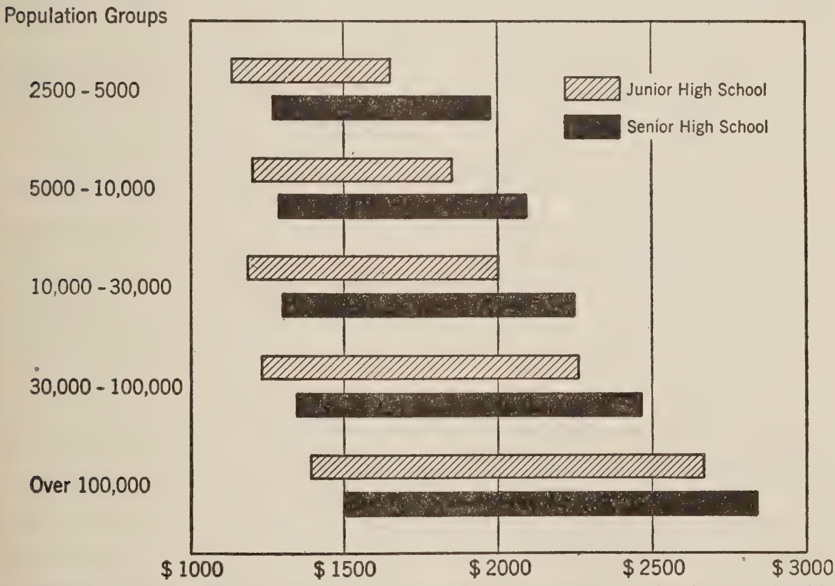

FIGURE 35. Range of Salaries for Teachers in Secondary Schools in 1930–31, as Represented by Median Minimum and Median Maximum Salaries Provided by Cities Which Reported Having Salary Schedules

found in any city in that group of cities. The left end of the bar represents the median of the minimum salaries paid in the various cities of the group, while the right end of the bar represents the median of the maximum salaries paid by the same cities. The cities included in the study are necessarily those with regular salary schedules and established minimum and maximum salaries.

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[1] See Table 42, page 341.

[2] "Salaries in City School Systems, 1930–31," *Research Bulletin of the National Education Association*, IX (May, 1931). Adapted from tables 3, 4, 13, 14, 23, 24, 33, 34, 43, 44, pp. 170, 178, 185, 191, 197.

The relative identity of the minima of the several groups of cities is striking, especially among the highest four groups. It suggests that minimal salaries for high-school teachers have been established without regard for the cost-of-living factor. The junior-high-school minimum for the largest cities exceeds that for the smallest cities by only 22.5 per cent; the senior-high-school minimum, by only 18.8 per cent.

The maximum salaries, on the other hand, show a marked tendency to increase with the size of cities, the maximum for junior high schools in the largest cities exceeding by 61.2 per cent that in the smallest cities. For senior high schools the corresponding percentage is 43.2. Accordingly, a somewhat greater range characterizes the salary scales of the largest cities, a range that increases progressively with the size of the cities. Assuming that salaries are used to reward or to buy teaching efficiency, these differences mean that financial recognition of the range in teaching efficiency increases both in amount and in proportion as one passes from one group of cities to the next larger.

The portrayal of median salary practices in figures 34 and 35 should not be interpreted as meaning that sharply defined modal practices exist. The medians are merely measures of central tendency in rather wide distributions. For example, minimum salaries paid senior-high-school teachers in the group of smallest cities in Figure 35 ranged from $700 to $1900; their maximum salaries ranged from $1100 to $3000 and over.[1]

Comparison of men and women. The sources of national data which have been quoted do not present comparisons of the salaries of men and women. To illustrate this relationship, facts from the comprehensive Michigan salary survey of 1922–23 have been drawn on. The median salaries of men and women high-school teachers in that state, as graphically represented in Figure 36,[2] are approximately $300 apart in each of the five groups of cities shown. The quartiles also aid in showing the relative salary position of the two sexes. The close approach of the women's third quartile to that of the men, in the largest cities, reflects the influence of Detroit, one may judge from a table [1] in the report. That city apparently gave men and women the same opportunity to attain the higher salary levels.

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[1] *Ibid.*, tables 43 and 44.

[2] Report of the Committee on Salaries of the Michigan State Teachers' Association, Clifford Woody, Chairman, *Bulletin No.* 1, January, 1924. Adapted from Fig. 2, p. 26.

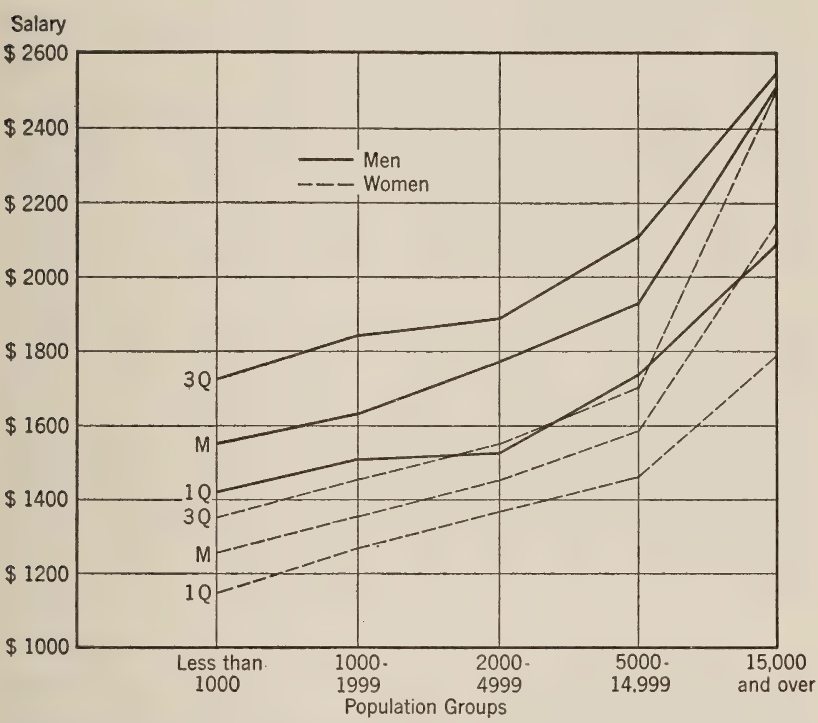

FIGURE 36. Salaries of Men and Women High-School Teachers in Five Groups of Michigan Cities

Conditions similar to those in Michigan were shown by Baer [2] to be prevalent in Ohio. He reported the median salaries of men and women in the high schools of rural counties and of cities of populations ranging between 5000 and 50,000 as favoring the men by approximately $300 in each group. In cities of more than 50,000 population the median salaries in junior high schools favored men by only $74, and in senior high schools, by $141. Similar contrasts are reported by Graves [3] for California. Data from the three states of Michigan, Ohio, and Cali-

[1] *Ibid.*, p. 21, Table XV.

[2] Joseph A. Baer, "For What Is the Teacher Paid?" *Educational Research Bulletin* (Ohio State University), VII (May 30, 1928), 233–234.

[3] J. W. Graves, "Distribution of the Time of High-School Teachers in California," *The American School Board Journal*, LXVII (November, 1923), 48–50.

fornia coincide so closely and consistently as to force the conclusion that a real distinction between men and women is a characteristic of the present status of teachers' salaries—a distinction more marked in the smaller cities than in the larger.

The status of principals' salaries. Pertinent to the quality of teaching in any school is the quality of the principal's leadership. Salary administration must be regarded as one of the determinants of the degree of ability found in the principalship. Some fundamental facts of the salary status of high-school principals may be gathered from Table 62.[1] To make clear the present salary status (1939), it seemed advisable to include in the table the salaries of 1930–31, from which it appears that present salaries are 5 or 10 per cent below those of that peak year.

One of the first aspects of the data to be noted is the marked advance in salary from the smallest cities to the largest. The percentages by which salaries in the largest cities exceeded those in the smallest cities in 1938–39 are as follows: for junior-high-school principals, 176; for senior-high-school principals, 121. The fact that the increase is greater in junior high schools than in senior high schools may be due to a frequent incumbency of women as junior-high-school principals in the smaller cities. A second point to be noted in the table is the difference in salary level of principals of the two schools, principals of the senior schools enjoying median differentials of from $400 to $800.

TABLE 62

Median Salaries Paid to Principals in the Years 1930–31 and 1938–39

Population Group	Junior High Schools		Senior or Four-Year High Schools	
	1930–31	1938–39	1930–31	1938–39
2500–5000	$1775	$1579	$2403	$2156
5000–10,000	2184	2025	2825	2597
10,000–30,000	2763	2667	3613	3309
30,000–100,000	3353	3215	4281	4055
Over 100,000	4500	4359	5100	4758

From Table 62 (above) and Figure 34 (page 418) the salaries of principals and teachers can be compared. Computation of relationships shows that in the junior high schools the salary of the median principal is 23 per cent higher than that of the median teacher in the smallest cities. This differential increases with the size of cities until it is 78 per cent in the largest cities. In senior high schools, the salary of the median principal exceeds that of the median teacher by 53 per cent in the smallest cities, by 100 per cent in the fourth group of cities, and by 78 per cent in the fifth, or largest, group of cities. Thus the financial rewards of the principalship are such as to make it considerably more attractive than teaching.

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[1] "Salaries of School Employees, 1938–39," *Research Bulletin of the National Education Association*, XVII (March, 1939), 70–74. Adapted from tables 2, 3, 4, 5, 6.

PRINCIPLES AND DEVICES IN SALARY ADMINISTRATION

A definite plan of compensation for teaching. As some of the gross facts of salary administration have been portrayed in the preceding section, they have been interpreted as reflecting the existence of certain principles, bases, or criteria of compensation. This section is devoted to an analysis and exposition of the principles, together with their application.

One of the concepts receiving increasing acceptance is that a definite plan of compensation for teaching is advisable, a theory which is put into practice by the adoption of a published salary schedule which indicates clearly to the teachers what the salaries are for different types of positions in the system and what bases are employed in the determination of salaries. Salary schedules have become increasingly prevalent. According to the latest data available, they have been established in 78.6 per cent of city school systems, being found universally in large cities and in approximately two thirds of cities with populations of 2500 to 5000.[1]

The advantages of a salary schedule seem to be classifiable as administrative and professional. In the first of these categories is the appeal which the schedule has for the administrator because it settles most of the important salary questions impersonally and objectively. It is drawn up to serve the schools; it recognizes *types* of positions and *types* of individuals in the teaching personnel; it defines characteristics irrespective of individuals. Such an instrument relieves the principal of the necessity of a detailed salary recommendation for each teacher; it largely relieves the superintendent and board from the weight of untoward influences in favor of or against particular individuals. Another advantage is appreciated by the superintendent when employing teachers. Having before him the qualifications in training and experience of a candidate whom he desires to hire, the fixed salary schedule tells him just how much he can offer. Individual bargaining is thus eliminated and so also is the possibility that new teachers will be given an unfair advantage over those already in service. A third administrative advantage lies in the easier definition and prediction of the financial status of the school system. It is in fact difficult to see how a budget could be prepared without a salary schedule in operation.

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[1] "Administrative Practices Affecting Classroom Teachers. Part II: The Retention, Promotion, and Improvement of Teachers," *Research Bulletin of the National Education Association,* X (March, 1932), 39, Table 3.

The part which a salary schedule can play in the professionalization of teaching should be obvious. The administrative advantages just mentioned are in a measure also professional: the impersonal, objective bases for remuneration assure teachers freedom from unfair discrimination and injustice. The definiteness of expectation which teachers have when a salary schedule exists tends to eliminate the annual feeling of unrest which arises when they cannot know what the next year holds in store for them. Teaching assumes the aspect of a real career when a ladder of financial advancement is plainly evident; this encourages a high type of young people to enter the profession and tends to retain them. This acceptance of teaching as a lifetime work and not as a steppingstone to something else should result, it is reasonable to expect, in greater devotion to the profession, in more thorough preparation for it, and in a continuance of preparation after entering it. A schedule may also dignify teaching by according the same treatment to home teachers as to those who come from outside the district. Since many teachers are willing to work for less in their home town than they would if obliged to live away from home, some boards are willing to employ them on such a basis for the sake of the dollars saved. Such practice tends to stamp teaching as a parasitic industry; the parents of the home teachers may actually be helping to support it. A schedule removes such an untoward influence in salary determination, recognizes that the value of teaching service is determined by the quality of the teacher rather than by the location of his residence, and tends to establish teaching as a profession.

Some schedules, it must be recognized, will go farther toward achieving these advantages than others, depending on the criteria which are considered in drawing them up. There is danger of making the schedules too automatic, of standardizing compensation so completely that there can be no deviation in dealing with exceptional individuals or in meeting special situations. It is a temptation to establish salaries so wholly on objective bases that actual differences in teaching ability will not receive recognition. Then stagnation may result because one important stimulus to attaining higher efficiency is lacking. The following portions of this section examine the several bases of salary schedules.

The criterion of common practice. "The principal technique that has been employed for judging the adequacy of teachers' salaries has been comparison with other similarly situated school systems." [1] Data illustrating such comparisons appear prominently in the reports of the extensive salary investigations made in Cincinnati [2] and in Pittsburgh.[3] The New York City Citizens' Committee [4] stated as one of the five avenues of approach to the study of the salary problem which they employed, "a comparison of the present salaries paid to New York City teachers with the salaries being paid in other large American cities. . . . In half of the cities studied the senior-high-school salaries were more than 50 per cent higher than elementary salaries, and in about half of them, less than 50 per cent higher. This fact was accepted as evidence that the proposed schedule for high-school teachers in New York City was not disproportionately higher than that proposed for elementary teachers." While this is a clear acceptance of average practice as a criterion, it represents a very limited use of the criterion. The other two studies just mentioned make many direct comparisons in numerous tables and charts of minimum, median, and maximum salaries, but the influence of these practices of other cities on the recommendations of the committees was not acknowledged.

A number of valid objections to the employment of average practice as a criterion can be raised. Ross, Reeves, and Russell [5] have stated five "specific shortcomings" of what they call "the technique of external comparisons," which may be summarized as follows: (1) There is first the difficulty of selecting comparable cities and the proving of comparability. Many factors must be considered, of which size of population is only one, though often accepted as sufficient. A small community located near a large city will have to compete for its teachers with the large city rather than with cities of its size. Cities similar in population vary as to specifications set up for teachers of any particular class. Whether or not an effort is made to justify the comparison, it is often suspected that the cities selected are chosen to make a point. (2) The purchasing power of salaries varies among communities, but accurate figures on the cost of living are not available for any except the larger cities. (3) There is a lack of reliable salary data upon which comparison can be made; the figures given in annual reports have varying meanings and their comparability must be carefully tested. (4) Such comparisons take no account of administrative efficiency. "For example, a school system maintaining such administrative policies as the early filling of vacancies and satisfactory conditions of teaching service very probably is able to hire better teachers at a given salary" than otherwise. For this reason, salary is not a fair measure of the quality of teaching service secured, and therefore a comparison on this basis lacks validity. (5) The interpretation of comparative figures is a very subjective matter. Should the city attempt to equal the mean of the comparable cities, or the highest standard of the group, or to exceed all other cities? There is no answer. It can be said, however, that the attempt to base standards on the average can lead to little or no general progress.

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[1] C. C. Ross, F. W. Reeves, and J. D. Russell, "A Technique for the Local Determination of Teachers' Salaries," *The American School Board Journal*, LXXVIII (February, 1929), 48–50.

[2] Report of the Committee on the Study of Salaries in the Cincinnati Public Schools. Board of Education, Cincinnati, Ohio, 1926.

[3] Citizens' Committee on Teachers' Salaries in Pittsburgh, Bulletins 1–15, 1928.

[4] *Teachers' Salaries in New York City,* Final Report of the Citizens' Committee on Teachers' Salaries, James R. McGaughy, Director, p. 20. Bureau of Publications, Teachers College, Columbia University, 1927.

[5] *Op. cit.*, p. 48.

The criterion of living costs. The first of the five *internal* criteria proposed by Ross, Reeves, and Russell as forming the true basis for the local determination of teachers' salaries is that of a relationship between salaries paid and the cost of living in the community.[1] It is also the first mentioned of Evenden's "fundamental principles for grading teachers' salaries." [2] The significance of such a basis and some concept of what the standard of living for teachers is conceived to be may be gathered from the following paragraphs from Elsbree's prediction of future practice in salary scheduling: [3]

> Instead of reducing salaries to the lowest sum which can be paid without losing the majority of the staff to other communities, the school authorities will attack the problem from a totally different angle. Not only will they consider the quality of the human material they wish to attract and to retain in the system, but they will also consider the sort of life these teachers should lead in order to render their most effective service.
>
> Leisure, itself a by-product of money, is absolutely essential to mental and physical vigor. The teacher must have time for reading and study, time for recreation and diversion, time for cultural interests, and time for travel. If the teacher's salary is so low that she must either devote her out-of-school hours to making her own clothes, doing her own laundry, cooking, and cleaning, or

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[1] *Ibid.*, p. 49.

[2] E. S. Evenden, "Fundamental Principles for Grading Teachers' Salaries," *Teachers College Record*, XXII (May, 1921), 200.

[3] Willard S. Elsbree, "The Future of Teachers' Salaries and Salary Scheduling," *Teachers College Record*, XXXVI (March, 1935), 492.

> else take on odd jobs to help defray expenses, she will have little time and less energy for those outside interests which would contribute to her effectiveness in the classroom. Teachers whose nerves are worn to a fine edge by mental and physical exhaustion, by too much routine and too little diversion, cannot have the patience, the tolerance, and the infinite sympathy which are essential to successful work with children.

The Citizens' Committee of New York City found in 1927 that approximately 30 per cent of the men teachers in the junior and senior high schools were earning an average of about $700 from outside sources during the school year. No account was taken of extra salary earned for evening school. In Shelbyville, Kentucky, where salaries did not correspond to the cost of living, Ross, Reeves, and Russell [1] found that approximately half the teachers were engaged in outside work to supplement their regular salaries during the school year, while others stated that they would do so but could not get work. The amounts earned, when added to the teachers' salaries, gave a total remuneration corresponding rather closely to the figure carefully established as the minimum subsistence level for teachers in that community. "Thus the failure on the part of the board of education to pay adequate salaries was in most instances met on the part of the teacher by a refusal to look on her work as a full-time job."

Recognizing the primary importance of relating salaries to the cost of living, that criterion has been used as one point of reference in a number of salary investigations. However, there are obstacles to be overcome and many factors to be considered in determining the cost of living. The following come most readily to mind. First, there is the problem of defining an acceptable standard of living for teachers. Second, the cost of living varies with locality. Third, teachers vary as between men and women and as between individuals with only themselves to support and individuals with families or other dependents to maintain.

Techniques which reveal these variations have been employed in a number of teachers' salary investigations. For example, in the Michigan study already cited, figures on the annual cost of board, room, and laundry for the unmarried, nonresident woman teacher were collected. Figure 37,[2] page 428, showing quartiles and medians of distributions for different-sized cities, gives an impression of the variation in these primordial factors in the cost of living as between communities classified according to size and as between communities of the same size. Such

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[1] *Op. cit.*, pp. 48–49.

[2] *Op. cit.*, p. 29, Table XXII (adapted).

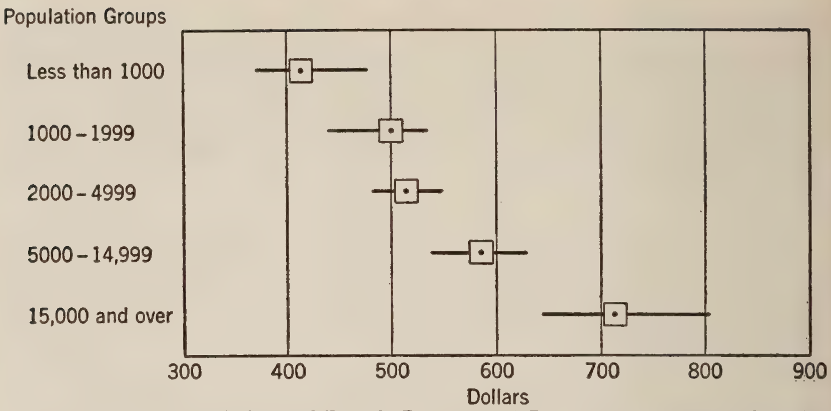

FIGURE 37. Annual Cost of Board, Room, and Laundry in 1922–23 for Unmarried, Nonresident Women Teachers in Five Groups of Michigan Cities, Represented by Median and Range of Middle 50 Per Cent of Each Distribution

data make it clear that every community must build its own salary schedule.

Additional light is shed on these variations, as between large cities only, by data presented in one of the bulletins of the Pittsburgh Citizens' Committee.[1] Comparing the food costs of 28 cities, as gathered monthly by the United States Bureau of Labor Statistics, in such a way as to give Pittsburgh a food index number of 100, the report shows for December, 1927, a food index number of 107.1 for Boston as compared with 80.5 for Baltimore. For June, 1928, the two cities had index numbers of 105.8 and 82.8, respectively. These two cities are almost identical in size of population. Nothing is more apparent from such data than that the purchasing power of the teacher's dollar must be studied rather than merely the number of dollars the teacher receives.

Careful investigations of teachers' living costs have been made in a number of cities. In a Minneapolis study [2] made in 1926, Royal Meeker, an economist of much experience in the study of living costs, presented detailed budgets for the single-woman teacher, the single-man teacher, and the standard family. These budgets totaled thus:

	Minimum	*More Liberal*
Single woman	$1356.20	$2352.30
Single man	1238.50	2057.00
Standard family	3062.00	4429.00

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[1] Bulletin 12.

[2] Royal Meeker, *A Study of Costs and Standards of Living of Minneapolis Teachers in Relation to Their Salaries.* Central Committee of Teachers' Associations, Minneapolis, Minn., 1926.

Only the "more liberal" budget for the standard family assumes the ownership of an automobile, and the allowance for that item (including, of course, upkeep, depreciation, gas, and oil) is lumped at only $400. Illustrating more fully the standard of living which the budgets represent, Meeker says:[1]

> Let me again remind the reader that we are still dealing with minimum standards of quantity and quality. This is not a luxury budget, nor is it a poverty-line budget. The teacher's wife in the lower salary groups must do most of her own housework, laundering, cleaning, mending, and all the thousand-and-one things which housewives have, from the days of Adam, been obliged to do. The wives may very likely object to a servantless home, while the husbands may object with equal vehemence to an autoless home. My reply to both of these anticipated criticisms is that a minimum health, dignity, and decency budget for the average teacher's family has no place for either a full-time servant in the house or an installment flivver in the garage.

Some attempts have been made to establish a universal ratio between items in the teacher's budget so that a minimum salary could be determined for any community by ascertaining the actual cost of but two or three of the items. The Michigan and Minneapolis studies found the ratio of the cost of room, board, and laundry to the total expenses of unmarried teachers not boarding at home to be between 45 and 50 per cent. The salary committee in New York City referred to these studies and accepted the ratio as a point of reference in determining their salary recommendations, except that they arbitrarily set the ratio at 55 per cent, reasoning that "the cost of rent in New York City is disproportionately high."[2] The Shelbyville surveyors assumed that the total living expenses of a minimum subsistence for teachers should be double the cost of board and room for twelve months.

As has already been intimated, one of the problems to be met in the employment of the cost-of-living criterion is, For whom shall living costs be computed? Is it reasonable to expect that a teacher's salary shall be sufficient to support a family, and support them in the state of decency and dignity implied in such budgets as have been quoted? In general, the answer to this question has been "No." As Lewis[3] has pointed out, the prevailing salary schedule for teachers in America is based on celibacy. The general assumption is that the vast majority of teachers are unmarried, that they have no dependents, and that they have merely themselves to support. Obviously, one of the essential steps in establishing teaching as a profession rather than a "procession" is the uprooting of this tradition and the building of salary schedules which imply the support of householders, of men and women of maturity bearing the normal financial burdens of maturity.

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[1] *Ibid.*, p. 37.

[2] *Op. cit.*, p. 141.

[3] E. E. Lewis, "Arguments and Principles Favoring the Single Salary Schedule," *The American School Board Journal*, LXXII (April, 1926), 49–50.

One proposed solution has been the payment of teachers in accordance with the number of their dependents. As an openly avowed basis for salary scheduling, this proposal has not received recognition. There is no parallel for it in industry; it bears no relation to production. Similarly, in education it bears no relation to teaching efficiency; it seems, therefore, unsound as a basis for differentiating teachers' salaries. Practically, however, the idea of payment on this basis has some influence, the higher salaries for men being partially an expression of it.

In several city salary investigations steps have been taken to determine the extent to which present teaching staffs have dependents. For New York City it is reported [1] that "43 per cent of all the senior-high-school teachers in New York City are men and three fourths of these men are married. Seventy-seven per cent of these married men have one or more children. . . . 46 per cent . . . have two or more children." With regard to the men and women teachers of the entire city, regardless of school grades taught, it is stated that "Seventy per cent of the women and 91 per cent of the men teachers reported one or more persons beside themselves who were chiefly dependent upon their incomes." [2] From data presented in the Pittsburgh survey was derived the following distribution of the entire teaching and administrative personnel with reference to dependency: 44.9 per cent, no dependents; 28.2 per cent, one dependent; 15.4 per cent, two dependents; and 11.5 per cent, three or more dependents. The number of teachers having dependents no doubt decreases as one passes from larger to smaller cities, because the age of the teachers averages less and less.

Recognition of the facts of dependency and of the desirability of having teachers who are supporting households is made clear in the recommendations of the Citizens' Committee of New York City, as far as senior-high-school teachers are concerned.[3] It was decided that men teachers were "indispensable to the successful carrying out of the senior-high-school educational program," and the committee arbitrarily selected the married man with a wife and one child as the basic unit whose cost of living should determine the salary schedule for all senior-high-school teachers. The median cost of food and rent for such teachers being $2169, and considering such costs to constitute 55 per cent of the annual living expense, $3900 was settled on as the basic annual salary needed. In schedule making, however, the basic salary was not used as the minimum; the minimum was established at $2280, and the increments were arranged so that the basic salary would not be attained until the end of eight years of teaching service. "It seemed reasonable to suppose that the typical man teacher begins his high-school teaching as a young man before or soon after marriage and that he arrives at the economic status implied by the basic salary after four or five years of teaching." The schedule provided for additional annual increments beyond the basic salary until a "regular maximum" of $4560 was reached, with a supermaximum of $5316 attainable by those securing an additional year of professional preparation. Thus the basic salary was established about in the middle of the schedule. It was estimated that the proposed schedule would result in an average salary of $4229 for high-school teachers the first year it was in effect.

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[1] *Op. cit.*, p. 146.

[2] *Ibid.*, p. 76.

[3] *Ibid.*, pp. 146–151.

For the teachers of elementary schools, the New York City committee decided on the cost of living of the unmarried woman teacher living away from home as the basic salary, considering that that group was indispensable to the schools. For junior high schools, no such basic salary was determined, a number of reasons being advanced; but the schedule recommended placed these teachers between senior-high-school and elementary-school teachers, a little nearer the former than the latter. "It was accepted by the Committee that a considerable percentage of the junior-high-school teachers should be married men with children."[1] The relation of their schedule to the "basic salary" computed for senior-high-school teachers can be judged from the circumstance that it provided a regular maximum of $3960, attained by nine annual increments, and a supermaximum of $4716, attained by three additional increments.

The New York report has been quoted extensively because it represents the most outright and the most scientific employment of the cost-of-living factor in salary determination that is available. It is commendable for its recognition of the desirability of remunerating regular day-teaching as a full-time occupation—as a profession for mature men and women.[2]

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[1] *Ibid.*, p. 159.

[2] The recommendations of the New York City Citizens' Committee were accepted by the Board of Education with some modification. The supermaximum feature was dropped.

The criteria of school or grade taught and of amount of training. It is most convenient to discuss these two criteria concurrently because they are in contrast with each other. Until recently, payment according to the school grade or age of the pupils taught was the universal practice. Evidence of the present prevalence of that basis has already been shown in Figure 34 (page 418), although it may also be said, on viewing the figure, that amount of training is apparently a basis, because it is known that elementary, junior-high-school, and senior-high-school teachers have, roughly, 2, 3, and 4 years of training, respectively. The majority of school systems have one schedule for elementary teachers, another for junior-high-school teachers, and a third for senior-high-school teachers. While there is a considerable movement toward a single salary schedule for all three groups—payment according to years of preparation and experience—both the New York and Pittsburgh committees, reports of which have already been freely quoted, recommended the separate schedules.

Practice during recent years is indicated by the 1935 analysis of 150 schedules which were (1) printed or mimeographed and (2) dated not earlier than 1928. The percentage distribution of these schedules according to type is given in Table 63.[1] While the distribution signifies the dominance of the position type of schedule, it will be noticed that preparation is listed as an element in two of the sub-types in which nearly half of all the schedules are classified. Of 22 recent local salary

TABLE 63

PERCENTAGE DISTRIBUTION OF 150 RECENTLY PUBLISHED SALARY SCHEDULES, ACCORDING TO THE TYPES THEY REPRESENT

POSITION TYPE	PER CENT	
Position only	18.7	
Position-Preparation	36.0	
Position-Preparation-Merit	13.3	
Position-Merit	1.3	
		69.3
SINGLE SALARY TYPE	PER CENT	
Preparation only	22.7	
Preparation-Merit	8.0	
		30.7
Total		100.0

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[1] *Organization and Content, Teachers' Salary Schedules*, Educational Research Service Circular No. 6, 1935, p. 15, Table I–A. Department of Superintendence and Research Division of the National Education Association.

studies, 10 recommended schedules of the position-preparation type and 12 recommended schedules of the preparation type.[1]

The validity of payment on the basis of school or grade taught has been freely argued. In favor of the practice it has been held that teaching older children is more difficult and that it requires greater intelligence or a rarer type of teaching ability on the part of the teacher. Opponents of these views commonly ask for evidence to back up such theories and claim there is none. Another argument advanced in favor of differentiation of salaries on the basis of the grade taught is that teachers of older pupils require more extensive and more specific training. In order to induce individuals to secure such advanced training, higher salaries must be paid. The opposing view is well stated by Lewis: [2]

> There is no evidence showing that a teacher in the lower grades needs less training for her work than is needed by a high-school teacher. The training should differ in kind but not necessarily in amount. There is reason to believe that highly trained teachers in the kindergarten and elementary grades pay their way by making the experiences of children richer.

It is significant, however, that in school systems where the theory of payment according to amount of training has been adopted, the minimum requirements of teacher-preparation are as different for elementary and secondary schools as is the case in systems where payment depends on the school or grade taught.[3]

The results of the practice of paying according to school or grade taught are such as to present a serious problem to the administrators interested in each school level. On account of these salary differentials, teachers in elementary and junior high schools are preparing as rapidly as possible to qualify for senior-high-school positions. Administrators of the two lower schools see the difficulty of retaining good teachers because the positions on the next higher level are better paid. As long as an appointment to teach older children is thus regarded as an advancement, it is difficult to induce teachers to regard teaching in Grade III or Grade VII as a worthy profession. Such positions become steppingstones, and only the position in a senior high school bears the aspect of a life career. The senior high school, also, is affected adversely. The salary differentials bring to it teachers who found keenest enjoyment in teaching little children or early adolescents, but who felt that they must seek the more remunerative and honorific status of a teacher in the senior high school or be stamped as one of low ambition and ability.

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[1] "The Preparation of Teachers' Salary Schedules. Part II: Drafting the Schedule," *Research Bulletin of the National Education Association*, XIV (March, 1936), 58–59.

[2] *Op. cit.*

[3] Lyle L. Morris, *The Single Salary Schedule: An Analysis and Evaluation*, p. 28. Teachers College, Contributions to Education, No. 413, 1930.

As a solution to these problems, it is urged that the basis of salary payment should be changed—that teachers should be paid according to the amount of training which they have, and regardless of the age or grade of the children they teach. Instead of two or three salary schedules, there would then be but one. The calculated advantage is that when all teaching positions are thus put on a basis of financial equality, they will seem equally desirable, equally worthy of a professional career. Teachers will then seek the position which accords most closely with their natural likings and aptitudes and be content to devote themselves to learning each year how to teach more effectively in that position. Furthermore, if a teacher is not succeeding well in one position, his transfer to different and more congenial work, perhaps involving a shift to older or younger children, can be effected without financial loss. Teaching efficiency in the elementary and junior high schools would be promoted because good teachers could be retained. Objective evidence of the validity of this line of thought does not exist.

The first problem that confronts those who would formulate a single salary scale is how to determine the differential between salaries paid to teachers with different amounts of training. The answer most commonly stated in educational literature is that it should be related to the teacher's investment in himself.

> The average of . . . seven estimates of a fair salary allowance for each additional year of professional preparation is $147. The wide range of the estimates, from $69 to $234, is due largely to differences in (1) estimated cost of initial training, (2) rates of interest allowed, and (3) number of years allowed to amortize the investment.
>
> In the hypothetical salary schedule proposed by the Committee on the Economic Status of the Teacher, the salary differential for each successive year is only $100 in the first year of service, while for teachers of ten years' experience the corresponding differential for each year of training is $600 [because yearly increments vary with extent of training].[1]

In the administration of a single salary schedule a number of problems, or perils, present themselves. One which has been pointed out is that with such a premium placed on training, teachers neglect their work and their health to take college or university courses during the year, during the summer, on the campus, or in extension classes. In view of the considerable portion of the working day and week which teachers themselves control, as pointed out in Chapter X, it is quite possible for such a condition to arise. The remedy, it seems, is adequate supervision. In fairness, however, it should be remarked that the same problem seems to be present in schools having multiple salary schedules —teachers on the poorer schedules are tempted to pile up credits with undue rapidity so that they may qualify for a better schedule. In his comparison of a group of single-salary-schedule cities with a matched group of regular-salary-schedule cities, Morris reported, "There is a slightly greater tendency on the part of the teachers of the regular-salary cities to increase their training while in service than on the part of those under the single salary schedule." [1]

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[1] "The Preparation of Teachers' Salary Schedules. Part II: Drafting the Schedule," *Research Bulletin of the National Education Association*, XIV (March, 1936), 64.

Another problem in the operation of a single salary scale—one which seems to have been too generally overlooked—is that of guiding the character and quality of the teacher's training. "One fourth of the superintendents of single-salary cities exercise no control over the training secured by their teachers for salary increases. Another fourth exercise no control except in approval of the teacher's selection of courses." [2] Elsbree [3] has aptly stated the problem and the remedy:

> Because amount of training has been so easy to measure, superintendents and principals have been content to use this standard only, without investigating the type and quality of preparation as well. . . . The situation can be largely controlled through close supervision on the part of the superintendent of the courses which teachers propose to take. . . . In no other way can the board of education be assured that additional training will result in improved teaching.

Obviously, this program of individual guidance of teachers constitutes a problem for administration. But unless a definite effort is made to meet it, we shall see again and again the situation of teachers rising to higher salary levels on credits which function only by chance in the improvement of teaching efficiency. The fullest recognition of the importance of this task is implicit in the accepted recommendation of the Pittsburgh Citizens' Committee that there be appointed to the administrative staff another associate superintendent to have charge of personnel. While all his assigned tasks deal with the selection, promotion, adjustment, and dismissal of teachers and principals, to the end that teaching efficiency be promoted, it is of interest here especially to quote one paragraph from the list of his duties: [1]

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[1] *Op. cit.*, pp. 28–29.

[2] *Ibid.*, p. 71.

[3] Willard S. Elsbree, "An Evaluation of the Single Salary Schedule," *Teachers College Record*, XXX (December, 1928), 228–230.

> (4) To give direction to the training of teachers and principals in service who aspire to qualify for the superior service salary levels. Such direction necessarily must include both the nature of the training pursued and the amount of such training as a teacher may be permitted to carry at any one time. This provision will properly tend to protect the health of the teacher and to prevent a lowering of the quality of classroom instruction.

A third problem—or, perhaps, a weakness—of the single salary schedule lies in its general failure to reward merit. The fundamental assumption involved is that teaching efficiency, which cannot now be measured objectively, is directly proportional to the amount of training and experience, which *can* be measured objectively. Common sense tells us that this assumption is not well founded, but it has to some extent been accepted because a plan for the objective determination of salaries appeals to the superintendent as an easy solution to a difficult problem. Elsbree urges that room be made for a consideration of merit in a single salary schedule; he concludes that: [2]

> The single salary schedule, then, should not be regarded as an algebraic formula where the superintendent substitutes years of training for x and years of experience for y, multiplies by the number of dollars his board of education has decided those attributes are worth, and gets as his result the salary of the teacher in question.

Training, then, will be regarded as but one factor.

A tendency to recognize both position and preparation in salary scheduling is well illustrated in the New York and Pittsburgh salary scales. Both cities have separate schedules for teachers of the elementary school, the junior high school, and the senior high school. Regular maximum salaries can be attained without additional training, but supermaximum salaries are available as rewards for preparation beyond minimum requirements. The Pittsburgh supermaximums rest, also, on a merit basis, as explained later in this chapter.

The criterion of experience. As universally employed as any basis of salary determination is that of experience. Progress from minimum to maximum on salary scales is largely accomplished by recognizing experience through the award of annual increments. Most commonly, the increments are the same for all teachers on a given schedule, without regard for their varying efficiency, excepting only those few who must be dismissed. This means that years of experience is the principal criterion which determines the teacher's location on the salary scale. Furthermore, since the distance from minimum to maximum is much greater in large cities than in small ones, experience is evidently much more potent in salary determination in large cities than in small ones. What is the real worth of this factor? The clear implication of salary schedules is that the efficiency of a teacher grows steadily year by year, at least for a number of years. Scientific evidence, however, of such a relationship between efficiency and experience does not exist. One or two attempts to derive a correlation have been discredited by the authors themselves. Experience is easy to measure; efficiency, as pointed out in Chapter IX, is not. The Citizens' Committee of New York City reported that "A scientific study of this relationship between experience and teaching efficiency indicates that the maximum of teaching efficiency is most often reached after seven or eight years of teaching," [1] but did not give the citation. Buckingham says,[2] "It has already been pointed out in a number of instances that improvement in ability to teach does not advance with experience, especially during the first few years, and that even then the relationship is not close." He expresses the opinion that "we exalt experience as a measure of preferment far beyond the importance of experience in determining the value of a teacher."

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[1] *Minutes of the Board of Public Education, Pittsburgh, Pa., XIX* (December 23, 1929), 105.

[2] *Op. cit.*, p. 232.

It is probable, however, that such marked recognition as we accord to experience through salary increments is an important influence in the professionalization of teaching, because a career is thus offered. Especially is this true if the maximum is high enough to make possible savings and a living on a cultural level, and if it can be attained within a reasonable number of years. The many questions concerning the administration of increments are usually answered with these goals in mind. Some of these questions are: "How large should the increments be?" "How many increments should there be?" "Should they be given annually or at longer intervals?" "Should they be automatic or should they be based on competency, training, and other criteria?"

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[1] *Op. cit.*, p. 114.

[2] B. R. Buckingham, "For What Are Teachers Paid?" *Educational Research Bulletin* (Ohio State University), VII (May 16, 1928), 208–209.

The Citizens' Committee of New York City[1] recommended nine annual automatic increments for junior-high-school teachers, the first three of $156 each and the last six of $252 each. For senior-high-school teachers they provided ten annual automatic increments, four of $192 and six of $252. There were made available, also, three additional automatic increments of $252 each for teachers who acquire one year of training beyond the minimum requirement. Concerning the plan of having smaller increments the first three or four years, the Committee said that this recommendation was made for the purpose of rewarding most largely the teachers of most permanent professional interest rather than those who remain in the system but a short time.[2]

Norton[3] has observed some tendency to extend the number of years over which a teacher may advance on a schedule. Six or eight annual increments bring the teacher to the maximum at approximately thirty years, with no chance of further advancement, and it is Norton's opinion that the maximum salary should not be attained at so early an age. A salary schedule which illustrates acceptance of this principle is that of Providence, which, by progressively increasing the period between salary increases, does away altogether with a maximum and makes it possible for salary increases to continue indefinitely.[4] The implication of professional growth until the time of retirement has something to be said in its favor.

The schedule recommended for Lexington, Kentucky,[5] provides for fourteen annual increments which gradually increase in size from the first to the seventh and then decrease gradually to the fourteenth.

The smaller communities, which feel that they must restrict the range between minimum and maximum to $500 or thereabouts, usually find it advisable to arrange increments of no less than $100 a year. If they attempt to set up $50 increments, the ablest teachers will only remain a year or two, while the mediocre and poor teachers stay on. The large increments tend to retain good teachers five years, which is preferable to the retention of poor teachers for twenty or more years. For capable teachers who, because of home ties or for similar reasons, must remain in the small community for a lifetime of service, it is commonly recommended that the board should vote small increases beyond the maximum from time to time.

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[1] *Op. cit.*, p. 182.

[2] *Ibid.*, p. 137.

[3] John K. Norton, "Major Trends in Teacher Salary Scheduling," *Teachers College Record*, XXXII (May, 1931), 719–723.

[4] A. J. Stoddard, "Old and New Principles of Salary Schedule Making," *The American School Board Journal*, LXXXI (October, 1930), 43–44, 126. The Providence schedule is given on page 447.

[5] *A Salary Study for the Lexington Public Schools*, Bulletin of the Bureau of School Service, University of Kentucky, VII (March, 1935), 1–64. See the description of this schedule on pages 448 and 449.

The criterion of competency. Theoretically, teachers should be paid according to ability; practically, this is a criterion so difficult to apply that its employment has been limited. A portion of Chapter IX [1] was devoted to a summary and an evaluation of progress in the objective measurement of teaching efficiency. Both the instruments and the prevalent methods of using them were shown to be faulty. The commonly repeated statement of observers is that so long as the rating card is merely the object of a conference between supervisor and teacher, it is accepted; but when it is used to determine the teacher's salary in any degree, it fails. The antipathies aroused in teachers are great because they feel that the ratings are personal and subjective. A loss of morale and a lack of co-operation with the administration ensue.

Despite its difficulty of application, many school systems make some use of the criterion of competency. Referring back to Table 63 (page 432), note the three sub-types of recently published salary schedules in which merit is named as one element. These three types comprise 22.6 per cent of the 150 schedules analyzed. Apparently additional members of this group of school systems make some provision for recognition of merit, because we are told:

> Seventy-one of the 150 schedules, nearly half, include one or more of the [following] six practices . . . :
>
> 1. Size of increment varies with rating . . . [11 schedules].
> 2. Maximum salaries vary with rating . . . [10 schedules].
> 3. Ratings affect placement on supermaximum salary . . . [26 schedules].
> 4. Increments are withheld if rating is unsatisfactory . . . [30 schedules].
> 5. Increments are based on satisfactory service . . . [21 schedules].
> 6. Higher salary may be provided, by special action, to teachers of exceptional distinction . . . [16 schedules].[2]

One of the difficulties in employment of a schedule which is featured by the first of the six practices above is the tendency to overrate teachers, so that unduly large percentages receive the higher increments. Young's analysis of practices and procedures of cities using merit-type salary schedules showed the influence of this factor to be as indicated in Figure 38, page 440.

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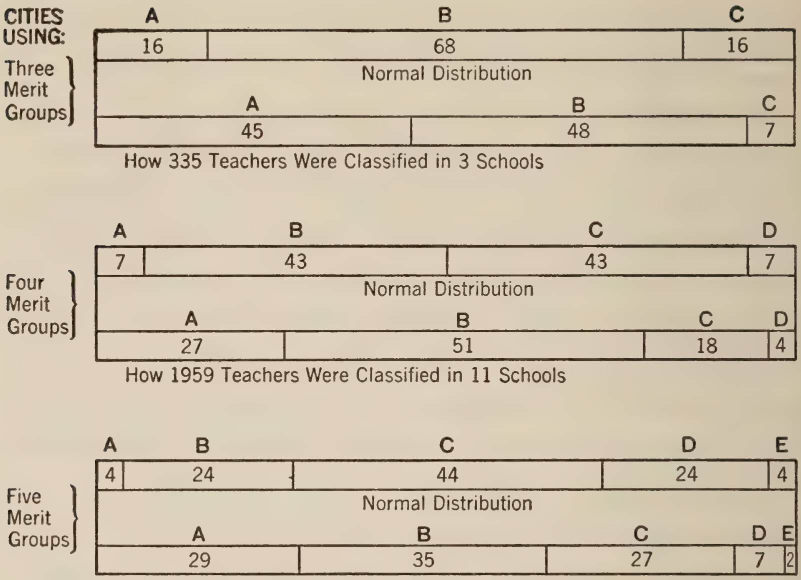
[1] See pp. 364 to 370.

[2] "The Preparation of Teachers' Salary Schedules. Part II: Drafting the Schedule," *Research Bulletin of the National Education Association*, XIV (March, 1936), 80–81.



How 335 Teachers Were Classified in 3 Schools

How 1959 Teachers Were Classified in 11 Schools

How 3180 Teachers Were Classified in 17 Schools

FIGURE 38. Per Cent of Teachers Rated into Each Merit Group Compared with Normal Probability Distribution in 31 School Systems (1929–30) [1]

Quite clearly, unless the tendency to overrate is restricted, the merit system will not achieve its avowed purpose of remuneration according to efficiency, and budgetary prediction may be rendered more difficult. Steele has reported [2] a method for avoiding this problem. In the Saginaw (Michigan) schools, teachers are ranked according to their value to the school system, as judged by their principals and supervisors, and divided into three groups on that basis. The highest third get increases of $100, the middle third, $75, and the lowest third, $50. The plan may be criticized on the ground that the differentials are so small as to constitute slight recognition of degrees of teacher value.

One of the salary devices which is frequently employed to reward the superior teacher is that of the supermaximum. An inquiry [3] in 1930–31 revealed the use of "superior ratings and performance" as one of the bases for granting the supermaximum salary in 290 of the 509 cities

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[1] Lloyd P. Young, *The Administration of Merit-Type Teachers' Salary Schedules*, p. 87, Chart VII (with slight adaptation). Teachers College, Contributions to Education, No. 552, 1933.

[2] Harold Steele, "Salary Determination in Saginaw Schools," *The American School Board Journal*, LXX (February, 1925), 40, 154.

[3] "Administrative Practices Affecting Classroom Teachers. Part II: The Retention, Promotion, and Improvement of Teachers," *Research Bulletin of the National Education Association*, X (March, 1932), 45, Table VII.

(57.0 per cent) in which a supermaximum was scheduled. The Pittsburgh salary schedule, with its provision of five levels of supermaximum salary attainable by no more than 45 per cent of those teachers who are at the automatic maximum at any one time, is an example of a supermaximum based primarily on merit, although advanced training is also a consideration.[1] The Providence scale permits recognition of merit at any time during the teacher's career to the extent of two extra $100 increments, the superintendent offering the opinion [2] that "It seems much more logical and effective to grant recognition of unusual training and proficiency at any time during the service of the teacher than to defer it until the maximum salary has been reached." The Lexington salary recommendations incorporated both the Pittsburgh and the Providence plan for rewarding merit.[3]

There are many to whom the use of competency as a criterion for salary determination appears impossible. The obstacles seem insuperable. They say, "We cannot measure the educational product; its complexity is baffling; it is absurd, then, to consider that we can measure the teacher's efficiency in turning out that product." On the other hand, paying teachers the same salary regardless of how well or how poorly they do their work is calculated to dull initiative, to breed an insufferable time-serving attitude, and in general to foster a lamentable stagnancy wholly out of keeping with professional ideals. The administrator, seeking to establish the conditions necessary for a more successful functioning of the school, cannot close his eyes to this danger and say that nothing else is possible. He must recognize that in salary administration he has a most powerful leverage for the raising of teaching efficiency, and he must search for the best way to use it. How properly to reward competency is after all the very crux of the salary problem.

The criterion of supply and demand. A factor in salary scheduling which cannot be ignored is the economic law of supply and demand. This natural force is basic in the determination of the price paid for teaching service, just as it is basic in the determination of the price of any commodity. If a board of education makes a relatively low offer of salaries, it can in general expect to buy only a relatively low quality of teaching service. If it establishes what may be regarded as a relatively high salary scale, the teachers of superior qualifications offer their services. Obviously, there are other forces besides remuneration which make a teaching position attractive or unattractive, but none more fundamental or omnipresent. The appropriate method of recognizing and employing the law of supply and demand, according to the Citizens' Committee of New York City,[1] "is that of establishing salaries at a level near that at which, in their judgment, they [the Board of Education] can supply their requirements, then to choose among those candidates who meet the minimum requirements, those who are most outstanding, or those who most greatly exceed the absolute minimum established." With such an application of the law, it follows that, as general conditions change to make a given salary schedule less and less attractive, poorer and fewer candidates will offer themselves, until the board is finally forced to raise the schedule or to lower its requirements in order to procure enough teachers to operate the schools. This condition prevailed about 1920. On the other hand, if conditions change to make a given salary schedule more and more attractive, the board has the opportunity to improve the teaching staff by choosing carefully the candidates of superior qualifications, or of reducing the salary scale to attract none but those who meet the minimum requirements. During recent years, teachers' salaries have been such as to afford the spectacle in some cities of a bachelor's-degree requirement for high-school teaching but of no candidates being accepted for vacancies unless they possess a master's degree.

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[1] The Pittsburgh schedule is shown on page 448.

[2] A. J. Stoddard, *op. cit.*, p. 43.

[3] *Op. cit.*, pp. 35–36.

Perhaps the most crucial and most debated problem in the effect and influence of this natural law has been in connection with the differentiated remuneration of men and women. As has already been shown, the general practice followed is to pay men more than women. Naturally, this situation appeals to many as a rank injustice. The contrast apparently bears no relationship to any qualifications of training, personality, or teaching ability. The explanation, of course, lies in the fact that as men and women at present distribute themselves among occupations, a given quality of teaching service can be secured at a lower market price by employing women rather than men. An examination of conditions in industry reveals similar wage contrasts.[2] The occupational opportunities open to women are relatively few as compared with those available to men. Women crowd into the teaching profession, depressing salaries to the point that makes the profession unattractive to men of adequate qualifications. In order to secure a significant proportion of men on the staff of the secondary school, administrators offer a salary differential calculated to attract men. It is not argued that men are superior teachers or that they will in general give superior service, but merely that their presence is necessary in order to create a normal social situation in the school. (See Chapter IX, page 346.) The public is satisfied to have its elementary schools staffed entirely by women, but it insists that adolescents should have men teachers as well as women teachers.

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[1] *Op. cit.*, p. 126.

[2] For data, see Arthur H. Hathaway, "Should There Be Salary Distinctions between Men and Women Teachers?" *The American School Board Journal*, LXXIX (July, 1929), 45–46.

Against the operation of the natural law we have the slogan "Equal pay for equal service." It is not new, but of recent years it has apparently won supporters. By 1930 it had been made law in ten states,[1] and an ordinance or an established custom in many cities. In 1930–31 equal salaries were scheduled for men and women in high-school positions in 45.2 per cent of 1098 city school systems.[2] Larger cities accepted the principle more frequently than did the smaller ones.

> The 150 schedules of recent adoption studied for this bulletin include 59 from states where equal-pay legislation is in effect. Of the remaining 91 there are 54, or 59.3 per cent, which make no difference in salary between men and women. . . . The median differential [among the others] is $200; the median per cent of difference in favor of men is 12.6.[3]
>
> The persistence of the position schedule, with its higher salaries for high-school teachers, is explained in part by the fact that men are regarded as essential in high-school teaching.[4]

Is there likelihood that the principle of equal pay for equal services, supported by legal fiat, may eventually result in complete abolition of differentials between men and women? Evidence in the negative is afforded in a study of salaries paid men and women teachers during the period 1905–1930 in some 500 high schools of the Middle West, showing that the salaries for men have been higher throughout the period and that the disparity is not tending to grow smaller.[5] Apparently, also, there are ways of evading equal-pay laws. Baer [6] says that "A study made by Graves in California shows that men high-school teachers in that state receive higher salaries than the women, in spite of the fact that the state has had an equal salary law since 1874. The differences are $400 per year in small high schools, $268 per year in medium-sized high schools, and $110 in large high schools, all in favor of the men." In one California city, salary schedule makers recently reported [1] that they felt conditions made it desirable to pay men more than women. Accordingly, they employed the principle of unlike services in the form of extra services. "By this provision men may receive more than women but, for this increased compensation, must perform extra duties, such as supervising extracurricular activities, supervising playgrounds and rest rooms, and supervising special projects."

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[1] Willard S. Elsbree, *Teachers' Salaries*, p. 45. New York: Teachers College, Columbia University, 1931.

[2] "Administrative Practices Affecting Classroom Teachers. Part II: The Retention, Promotion, and Improvement of Teachers," *Research Bulletin of the National Education Association*, X (March, 1932), 43, Table 5.

[3] "The Preparation of Teachers' Salary Schedules. Part II: Drafting the Schedule," *Research Bulletin of the National Education Association*, XIV (March, 1936), 76.

[4] *Ibid.*, p. 77.

[5] Walter W. Ludeman, "What of Equal Pay?" *The American School Board Journal*, LXXXII (June, 1931), 60, 133.

[6] Joseph A. Baer, "For What Is the Teacher Paid?" *Educational Research Bulletin* (Ohio State University), VII (May 30, 1928), 231.

Those school systems which give equal pay to men and women, however, are not actually nullifying the differential which the law of supply and demand imposes. If the selection of teachers in such systems is performed expertly, the result may well be that the schools will be staffed by men of what we may call C or B quality and by women of A quality. The distinction may not appear in a comparison of years of training; it may not be objectively measurable; but it will be there, assuming care in teacher selection. Ostensibly, "Equal pay for equal service" will be realized; actually, the women will give a higher average service, because, as any administrator knows, $3000 will attract women of higher ability than that of the men who are attracted. The economic law seems almost inevitably to assert its influence.

Criteria for the determination of high-school principals' salaries. Practically no data are available to show in detail the bases operating in the determination of high-school principals' salaries. It is apparent, of course, from Table 62 (page 422) that the level of the school administered is a factor. The criterion of common practice was employed by the Citizens' Committee of New York City in making their recommendations of principals' salaries. They studied the ratios between the salaries of teachers and principals in a number of large cities, arrived at the average ratios, and then used the ratios to determine in part the salaries of principals.[2] Some ratios existing in 1930–31 are given in Table 64.[3] They show a rather consistent tendency to pay proportionately larger salaries to principals as one passes from the smallest cities to the largest. These ratios should not be regarded as standards, but only as a portrayal of average conditions obtaining. Undoubtedly, salaries of principals are being administered with a view to attracting and retaining capable educational executives in competition with other professions and business occupations. Training, experience, and competency are all considerations, but as yet there has been little of the analysis and study which have been devoted to the problem of teachers' salaries.

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[1] Henry A. Cross and Lionel De Silva, "The Inglewood Teachers' Salary Policy," *The American School Board Journal*, XCI (November, 1935), 25.

[2] *Op. cit.*, pp. 63–64.

[3] "The Preparation of Teachers' Salary Schedules. Part II: Drafting the Schedule," *Research Bulletin of the National Education Association*, XIV (March, 1936), 86. (Taken from Table 13.)

TABLE 64

INDEX OF RELATIONSHIPS BETWEEN MEDIAN SALARIES PAID IN CITY SCHOOL SYSTEMS, 1930–31

FUNCTIONARIES	INDEX OF CITIES HAVING POPULATIONS OF:				
	Over 100,000	30,000–100,000	10,000–30,000	5000–10,000	2500–5000
Elementary teachers	100.0	100.0	100.0	100.0	100.0
Junior-high-school teachers	110.9	115.6	113.4	114.7	117.0
Senior-high-school teachers	128.9	131.2	131.4	129.9	133.1
Junior-high-school principals	212.5	208.4	193.5	167.6	152.8
Senior-high-school principals	240.8	266.1	253.0	216.8	206.8

SOME EXAMPLES OF SALARY SCHEDULES

Although numerous illustrations of the principal features of salary schedules have been offered, it seems advisable to present a few schedules so that all the criteria and devices employed in the making of a particular schedule may be seen in their interrelations. Those selected for reproduction represent a variety of factors in salary determination and variation in the weighting of the factors. They are not presented as ideal schedules.

In the hypothetical schedule shown in Table 65[1] (page 446) the cost of living is the first consideration, but preparation also figures as an all-important criterion for differentiating salaries. It would attract men to the high-school faculty and afford a powerful stimulus to the women teachers of the elementary school to acquire advanced training.

The preparation schedule of Medford, Massachusetts, adopted in 1930, is given in Table 66,[2] page 446. At the minimum, the person of five years' training has an advantage of $300 over the person of two

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[1] "The Teacher's Economic Position," *Research Bulletin of the National Education Association*, XIII (September, 1935), 252, Table 38.

[2] *Organization and Content, Teachers' Salary Schedules.* Educational Research Service Circular No. 6, 1935. Department of Superintendence and Research Division of the National Education Association.

TABLE 65

Hypothetical Salary Schedule for Teachers, Based on Assumption of $900 as Local Cost of Necessities for the Beginner,* and $1750 as Cost of Necessities for the Experienced Teacher †

Years of Experience	Salary Based on Years of Training beyond High School			
	Two Years	Three Years	Four Years	Five Years
None	$1200	$1300	$1400	$1500
One	1250	1400	1550	1700
Two	1300	1500	1700	1900
Three	1350	1600	1850	2100
Four	1400	1700	2000	2300
Five	1450	1800	2150	2500
Six	1500	1900	2300	2700
Seven	1550	2000	2450	2900
Eight	1600	2100	2600	3100
Nine	1650	2200	2750	3300
Ten	1700	2300	2900	3500

* Necessities for the beginning teacher assume that he (or she) has no dependents and lives apart from relatives but does not maintain a home.

† Necessities for the experienced teacher assume that he (or she) maintains a home and has the average number of dependents.

years' training, and the differential at the maximum is just $400. Clearly, this schedule places no such premium on preparation as does the schedule in Table 65. The Medford schedule shown is for women teachers only; it is stipulated that salaries of men teachers shall be $500 above those of women teachers. Schedules which have evolved out of extended and objective investigation do not so easily resolve the problem of attracting and retaining men.

TABLE 66

The Salary Schedule of Medford, Massachusetts

Number of Years of Preparation beyond High School	Minimum	Increments	Maximum	Supermaximum
Two	$1000	3 × $100 4 × $125	$1800	A supermaximum salary increase of $100 based on the value of the service rendered may be granted to any teacher who is receiving the maximum salary. To be eligible, the teacher must have served on the maximum rating for at least a full school year.
Three	1100	3 × $100 4 × $125	1900	
Four	1200	3 × $100 4 × $150	2100	
Five	1300	3 × $100 4 × $150	2200	

TABLE 67

THE SALARY SCHEDULE OF PROVIDENCE, RHODE ISLAND
(SECONDARY SCHOOLS)

YEAR OF SERVICE	JUNIOR HIGH SCHOOL	SENIOR HIGH SCHOOL	YEAR OF SERVICE	JUNIOR HIGH SCHOOL	SENIOR HIGH SCHOOL
1	$1200	$1400	14	$2600	$2900
2	1300	1500	15	2700	3000
3	1400	1600	16	2700	3000
4 (1st term)	1500	1700	17	2700	3100
4 (2d term)	1600	1800	18	2800	3100
5	1700	1900	19	2800	3100
6	1800	2000	20	2800	3200
7	1900	2100	21	2800	3200
8 (1st term)	2000	2200	22	2900	3200
8 (2d term)	2100	2300	23	2900	3200
9	2200	2400	24	2900	3300
10	2300	2500	25	2900	3300
11	2400	2600	26	2900	3300
12	2500	2700	27	——	3300
13	2600	2800	28	——	3300

The Providence schedule, reproduced in Table 67,[1] has already been referred to as one providing for the recognition of merit at any time and for the absence of a definite maximum. It is seen to be a position schedule, with regular increments for experience until the fourteenth year for junior-high-school teachers and the sixteenth year for senior-high-school teachers. Following increments are awarded at two-year, three-year, four-year, and five-year intervals respectively, continuing indefinitely with the addition of one year for each succeeding salary level. As for the recognition of merit, while teachers may be given two extra increments of $100, they may also be denied a regular increment. In the latter event they are given a written notice explaining the causes of such denial. Quite clearly, Providence has a position-merit schedule.

The plan for rewarding superior service is the most unique feature of the Pittsburgh salary schedule. (See Table 68, page 448.) Since only 45 per cent of those teachers at the automatic maximum are eligible to the supermaxima, and then only a certain percentage at each of the five superior teaching levels, it can be seen that the choice of the individuals who are to enjoy the supermaxima is a serious problem.

The schedule for Lexington, Kentucky,[2] starts with a minimum of $1000 and with minimum training requirements of graduation from a four-year teacher-training institution with the A. B. degree or its equiv-

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[1] A. J. Stoddard, *op. cit.*, p. 44.

[2] *Op. cit.*, pp. 29–39.

TABLE 68

PITTSBURGH SALARY SCHEDULES FOR SECONDARY SCHOOLS [1]

	JUNIOR HIGH SCHOOLS	SENIOR HIGH SCHOOLS
Minimum salary	$1800	$1800
Annual increments	(6) 175	(8) 175
Automatic maximum	2850	3200
Superior teaching levels (Supermaxima attainable by no more than 45 per cent of those at automatic maxima)		
No. 1 (15 per cent)	3025	3400
No. 2 (12 per cent)	3200	3600
No. 3 (9 per cent)	3400	3800
No. 4 (6 per cent)	3600	4000
No. 5 (3 per cent)	3800	4200

alent. Table 69 shows the plan of varying increments. The first ten increments are granted for minimum training, and the remaining four increments for four levels of advanced training. Elementary-school teachers are not rewarded for training beyond the master's degree. Junior-high-school teachers are not rewarded for training of more than thirty semester hours beyond the master's degree. Only senior-high-school teachers may be accorded the final increment for preparation, that given for attainment of a doctor's degree. Thus, in actuality, the criterion of position is recognized in this schedule.

Table 70 shows the recognition of merit provided in the Lexington schedule, and also salary differentials for sex and school.[2]

TABLE 69

INCREMENTS FOR EXPERIENCE AND PREPARATION PROVIDED IN THE LEXINGTON, KENTUCKY, SALARY SCHEDULE

YEARS OF EXPERIENCE	INCREMENT	YEARS OF EXPERIENCE	INCREMENT
1	$30	8	$85
2	45	9	60
3	55	10	45
4	65	11	40
5	75	12	40
6	85	13	30
7	95	14	30

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[1] *Minutes of the Board of Public Education, Pittsburgh, Pa.*, XIX (December 23, 1929), 95–100.

[2] The Lexington schedule here presented is the one provided for white teachers. A separate schedule for Negro teachers parallels that for white teachers at all points, but with about 15 per cent less salary.

TABLE 70

MAXIMUM SALARIES PROVIDED BY THE SCHEDULE FOR LEXINGTON, KENTUCKY

CLASSIFICATION	EXPERIENCE-PREPARATION	MERIT RATING A (9 per cent)	MERIT RATING B (6 per cent)	MERIT RATING C (3 per cent)
Elementary				
Men	$1965	$2065	$2165	$2265
Women	1790	1890	1990	2090
Junior High School				
Men	2055	2155	2255	2355
Women	1880	1980	2080	2180
Senior High School				
Men	2165	2265	2365	2465
Women	1990	2090	2190	2290

The presentation of these five salary schedules concludes this brief treatment of an important administrative problem. It is obvious that many minor points in salary administration have not been touched on. It is also plain that this problem is one which is seldom considered as peculiar to the teachers of the secondary school. Most high schools are districted with elementary schools, and all grades of the public schools are governed by a common board of education. When salary scheduling is done, it usually involves all the teachers of a system, elementary and secondary, and is a responsibility accepted by the board of education and the chief administrator of the school system, the superintendent. This chapter aims to present the problem especially from the standpoint of the secondary school and to explain and evaluate principles and practices with reference to their promotion of teaching efficiency.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Prepare a salary schedule for some high school or system of high schools with which you are familiar, and justify it. Compare the budget which it will entail the first year and later years with the present budget.
2. What is the value of a written examination as a factor to be employed in promoting teachers to higher salary levels?
3. Study and evaluate methods of state participation in salary determination.
4. Study three communities near your own which are comparable to yours in population. Find as many conditions as possible which would invalidate a comparison of their salary schedules and salary payments to secondary-school teachers with those obtaining in your community.
5. Consider the extent to which the predominance of men in administrative positions is due to an effort to retain them in the teaching profession through reserving these more remunerative positions for them.

6. What salary devices and other devices would you employ to reduce the cityward drift of teachers?
7. Ask ten high-school teachers in a large city to trace their careers, explaining the motives or circumstances which led them to take each step. Try to summarize and evaluate their reports.
8. For any high-school faculty which you know, collect the facts concerning teachers' dependents. Determine to what extent the teachers are dependent on others.
9. In any high-school faculty which you know, determine how many teachers own automobiles, what the salaries of those teachers are, and what are their responsibilities in supporting others.
10. In a junior high school employing teachers of varied training, obtain from the principal his ranking of his faculty in terms of their all-around value to the school. Then rank them according to the number of semester hours of training which they have had. Find the coefficient of correlation between the two arrays.

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Chapter XII

Personnel and Organization for Administration

THE PRINCIPALSHIP

Significance and scope of this discussion. As was indicated in Chapter I, the purpose of this book is to set forth the problems and the tasks involved in the internal organization and management of secondary schools. An important index to the efficiency and intelligence with which these problems are being met and solved, these tasks performed, is to be found in the study of the personnel responsible for them. It is made evident, at appropriate points in the book, that there are many who share this responsibility—the public, the state legislature, the state department of education, the local board of education, the city superintendent of schools, and the principal of the school, among them. Also, in Chapter I, while suggesting the scope of secondary-school administration, facts were presented to indicate the functionaries in administration within the school other than the principal. In the discussions of the several phases of the function of administration which the chapters of this book treat, there are set forth directly or by implication the actual and the ideal relationships between the phases of the function and the administrative personnel. That is to say, with each function an attempt is made to answer the questions: "Who is and who should be responsible?" "How *is* it performed and how *should* it be performed?"

It is not here possible and perhaps not profitable to single out for analysis each of the bodies, agencies, and individuals bearing responsibility for high-school administration. The treatment of this book is organized around phases of the *function* rather than around *personnel.* There is, however, great value in a study of those specialists whose profession is secondary-school administration. In fact, one of the functions to be performed by those more remotely in authority is the provision of specialists to be more immediately in authority. Is this function recognized and adequately performed? The purpose of this chapter is to answer this question by a study of certain specialists now provided—their experience, training, and personal qualities, and how administrative responsibilities are distributed among them. The foremost of these specialists is the principal.

The principal's training. (1) *Attendance and degrees.*—Surveys to show what the principal's training is, and to determine by consensus of opinion what his training ought to be, have been made by Koos,[1] Eikenberry,[2] Foster,[3] Feelhaver,[4] the National Survey of Secondary Education,[5] Shannon,[6] and others. These studies will be drawn on for a brief treatment of the principal's training.

Shannon studied the membership lists of the Department of Secondary-School Principals from 1918–19 to 1933–34 and found that the percentage of principals with masters' degrees had come to equal the percentage with bachelors' degrees by about 1930 and had grown steadily higher since that date. Table 71 [7] shows the distribution of principals, with reference to possession of degrees, in 1933–34. Similar data gathered in the National Survey of Secondary Education indicated a general level of training slightly lower than that found by Shannon.

TABLE 71

DISTRIBUTION OF PRINCIPALS ACCORDING TO ACADEMIC DEGREES, 1933–34

DEGREES	PRINCIPALS	
	NUMBER	PER CENT
None	88	4.24
Bachelor	878	42.31
Master	1059	51.04
Doctor	50	2.41
Total	2075	100.00

The authors were moved to speculate on why:

> . . . principals who have been in service for a number of years have not felt moved to train for higher degrees. Whether they believe that their educational experience is such that degrees with the additional training entailed

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[1] Leonard V. Koos, *The High School Principal.* Houghton Mifflin Company, 1924.

[2] D. H. Eikenberry, *Status of the High School Principal.* United States Office of Education, Bulletin No. 24, 1925.

[3] Frank K. Foster, *Status of the Junior High School Principal.* United States Office of Education, Bulletin No. 18, 1930.

[4] Carl T. Feelhaver, "The Duties of High School Principals in the State of Nebraska," *School Review*, XXXV (March, 1927), 188–193.

[5] Fred Engelhardt and William H. Zeigel, Jr., *Administration and Supervision*, Part I, pp. 1–137. National Survey of Secondary Education, Monograph No. 11. United States Office of Education, Bulletin No. 17, 1932.

[6] J. R. Shannon, "Academic Training of Secondary-School Principals in the United States," *Bulletin of the Department of Secondary-School Principals of the National Education Association*, No. 53, December, 1934, pp. 7–12.

[7] Adapted from J. R. Shannon, *op. cit.*, Table 1, pp. 10–11.

> would not be worth the effort; whether they are too busy to leave their duties for a period of study; whether they are not professional; whether they are of the opinion that the type of training offered for the master's degree in higher institutions would be of little or no value to them. . . .[1]

Because degrees are not better than a coarse index to the extent of attendance at higher institutions, the earlier investigators gathered evidence of the years of training. Such data, if accumulated for the principals represented in Table 71, would doubtless show a slightly higher level of training than is indicated by degrees possessed. Furthermore, if the principals were grouped according to size of school or community, extent of training would be shown to vary directly with that factor.

(2) *His academic training.*—Koos asked principals to check the subjects they had studied in high school and in college. His summary [2] suggests that the principal's contacts with subject-matter fields represent the typical liberal-arts education, involving the gaps in training which seem unavoidable with the present elective system. Few principals had studied in the newer fields of the secondary-school curriculum, such as agriculture, industrial arts, music, graphic arts, commercial subjects, or physical education.

Consideration of this side of the principal's training is of importance because it has some bearing on his effectiveness as a director and supervisor of the work of the various departments of his school. Clearly, the principal must be one who understands the values of all the subject fields and who has some appreciation of the methods, materials, and learning processes which they properly employ. In view of the formal training reported, it is apparent that the principal of professional quality must informally supplement his education in subject matter in order that he may intelligently develop and direct all the departments of a comprehensive secondary school. Unquestionably, the "blind spots" or prejudices of the principal account for the imbalance of many a high-school program.

Carrying this point somewhat further, if the secondary school is to function as an instrument in the dissemination of a genuinely liberal culture, if it is effectively to socialize our young people and to give them the compelling ideals essential to the building of a sounder social structure, it follows that its immediate administrator must be a person of fully liberalized mind and spirit.

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[1] Engelhardt and Zeigel, *op. cit.*, p. 46.

[2] *Op. cit.*, Table IX, p. 39.

Finney has happily emphasized "a general education so liberal and extended as to seem almost impossible" as the major element that should appear in "the professional education of educators." A paragraph from his thought-provoking exposition of this point of view may well be quoted in this abbreviated treatment of the principal's academic training: [1]

> . . . we may begin by pointing out that the school administrator's work may be roughly analyzed into two major parts: executive details, and the formulation of policy. The first is mere school shopkeeping; the second is educational statesmanship. The first includes supervision of instruction and discipline, school accounting both instructional and financial, selection of teachers, budget making, publicity, and the like. The second involves deciding what is to be taught, to whom, and by what equipments and arrangements. It involves, in other words, the progressive reorganization of the curriculum and of the facilities for presenting the same. In his first capacity as school shopkeeper the educational administrator is operating the school *as it now is;* in his second capacity as educational statesman he is making the school over into *what it ought to become.* In the one function he is merely running the *school* of today; in the other he is running the *world* of tomorrow. The second . . . is by far the most important function of education in the present great transition, and one for which the common run of educators seem to have a very vague, schematic sense of their responsibility. To perform the first function the educator needs the minor specialty of his profession—the science of school administration. But to perform the second function he requires that major specialty of his profession which turns out to be, not special at all, but the broadest and most liberal enlightenment possible. For this second function any narrow specialization in mere technology is more likely than not to prove a disqualification in the end.

(3) *His training in education.*—In his undergraduate career the principal pursued the courses in education necessary to entrance on the profession of teaching. He was not planning to become a principal.[2] At the graduate level, when he has taken such training, he has in the majority of instances chosen education as his field of special interest. Asked what sort of training he would emphasize as further preparation for the work of high-school principal, he has indicated educational topics rather than liberal-arts fields, most frequent mention being made of the following subjects, arranged in the order of decreasing frequency: administration, measurement, supervision, psychology.[3]

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[1] Ross L. Finney, *A Sociological Philosophy of Education*, pp. 539–540. By permission of The Macmillan Company, publishers.

[2] Leonard V. Koos, *op. cit.*, pp. 45–49.

[3] *Ibid.*, pp. 50–55.

Junior-high-school principals, according to Foster,[1] have more frequently shown a tendency toward professional specialization in their undergraduate careers, as might be expected from the fact that "two fifths of the men principals and three fifths of the women principals have had normal-school preparation." Nearly one fourth of junior-high-school principals do not hold any university degree, a fact which is no doubt explained by the recency of transition from the 8–4 to the 6–3–3 organization.

Eikenberry tabulated the educational courses which principals reported having taken and found them to represent a rather wide range, with only two subjects—history of education (general) and educational psychology—having been studied by as many as 50 per cent of the principals.[2] This lack of agreement on training signifies the relative immaturity of the principalship. If the mark of a well-established profession is a body of exact scientific knowledge, a command of which is essential equipment for all who would enter the profession, the high-school principalship cannot yet qualify. In many localities it is doubtless thought of as involving no larger specialized knowledge than that which is necessary for teaching. However, standards are in the making, as simple observation of changes that have occurred in the past quarter century must reveal to anyone. It is to be hoped that the standard makers themselves are possessed of adequate educational perspective; theirs is the responsibility for making the principal a "school shopkeeper" or an "educational statesman" or both.

In a later writing, Eikenberry [3] outlined the following elements which, in his opinion, should comprise a year of professional study for the principalship, a program to be taken up "after two or three years of successful experience in the classroom: "

1. Fundamental courses
    (a) Philosophy of education
    (b) Educational psychology
    (c) General introduction to public-school administration
    (d) History of modern education
    (e) Organization of American secondary education
    (f) Educational statistics
2. Courses dealing specifically with the work of the high-school principal
    (a) High-school administration
    (b) High-school supervision

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[1] *Op. cit.*, pp. 35–36.

[2] *Op. cit.*, p. 20, Table 21.

[3] "The Professional Training of Secondary-School Principals," *School Review*, XXXVIII (September, 1930), 501–502.

> (c) High-school curriculum
> (d) Administration and supervision of pupil activities
> (e) Administration of pupil guidance
> (f) Tests and measurements in secondary education
> (g) Public relations
>
> 3. Courses in administration usually designed for the school superintendent
>   (a) School finance
>   (b) Business management
>   (c) Construction and equipment of school buildings
>
> In addition to the sixteen courses just outlined, the year of graduate training should include the writing of a thesis dealing with a practical problem in secondary-school administration.

Eikenberry further advocates the serving of an interneship as a final step in training.

> A year's experience as an assistant principal or as an understudy to the principal of a progressive school would give the student opportunity to put into practice the techniques learned during the year of graduate study.[1]

The question comes to mind, Could not large city school systems make extensive use of the interneship to test as well as to train those of its teaching personnel who indicate a desire to be made principals?

(4) *Requirements for certification.*—An index to our progress in setting up special training for the high-school principal is to be had in a study of the requirements for certification which have been established by the various states. The most recent survey available points out that, whereas in 1923 only seven states "made a distinction between high-school teachers and high-school principals in granting certificates," by 1933 the number of states so doing had risen to 27.[2] While considerable divergence and a lack of uniformity characterize the requirements of these certificates,

> All are based on at least college graduation or its normal-school equivalent, and . . . all require from one to five years' experience. . . .
>
> Over half the states exercising control over entrance to the high-school principalship provide for the completion of at least twenty semester hours of some kind of professional courses. . . . Twelve states specify that the professional courses be completed on the graduate level.[3]

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[1] *Ibid.*, p. 508.

[2] Arvid J. Burke, "Professional Courses for Secondary-School Principals," *Educational Administration and Supervision*, XX (October, 1934), 506.

[3] *Ibid.*, p. 507.

Courses in school administration and supervision are those most frequently mentioned in the certification requirements.

The potency of certification as an instrument for professionalizing the principalship needs no comment. The rapid growth in the use of this means may modify the present picture of the principal's training markedly within the next decade.

The principal's experience and professional stability. That the amount and types of experience which the principal brings to his work are a part of his preparation for it and are also indicative of the respect in which the office is held are points that need no elaboration. Eikenberry [1] found that the principals whom he canvassed had entered on their first principalship at ages widely varying, the median being 26.2 years. The 463 principals of city secondary schools who responded to the inquiry of the National Survey of Secondary Education [2] had had a median of 19.3 years of educational experience. An average of 9.1 years of that experience had been in secondary-school principalships, and an average of 4.7 years, in secondary-school teaching positions. Foster's survey of junior-high-school principals shows the most frequently held positions immediately preceding their present principalships to have been as follows: [3]

Elementary-school principal, 38.0 per cent
High-school teacher, 20.5 per cent
High-school principal, 9.8 per cent
Superintendent, 8.0 per cent
Vice-principal, 5.5 per cent
Elementary-school teacher, 4.5 per cent
Junior-high-school teacher, 4.5 per cent

Regarding the universal practice of selecting principals from the ranks of teachers, Buckingham offers the following criticism: [4]

> Here, then, is a person whose training and whose prolonged experience have admirably fitted him to be a classroom teacher. Therefore, we say, let us destroy him as a teacher and make him a principal. His ways of thinking and his types of reaction are those of a classroom teacher. Therefore, we say, let us require of him the ways of thinking and the types of reaction of the building principal. Furthermore, his old ways of thinking and types of reaction have

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[1] *Status of the High School Principal*, p. 34, Table 33, and p. 28, Table 25.

[2] Engelhardt and Zeigel, *op. cit.*, p. 51, Table 19.

[3] Foster, *op. cit.*, p. 43, Table 32.

[4] B. R. Buckingham, *The Supply and Demand in Teacher Training*, p. 60. The Ohio State University Studies, Vol. II, No. 15, 1926.

> become somewhat rigid during a long period of teaching service. The principalship, on the other hand, imposes new duties, a radically different point of view, and a whole series of new adjustments. Therefore, we say, let us make of this good teacher, with his settled ways, a principal, for doubtless he will show the resilience of youth.

Buckingham would rely more largely on training than on teaching experience for the fitting of high-school principals. He advocates a course "five years long—with the M. A. degree or its equivalent," but stipulates that "A certain amount of teaching and supervisory experience in the type of school to which the course relates should be a prerequisite to graduation." There is obviously much common sense in this point of view; it deserves careful consideration in the formulation of any program to provide better administration for the secondary school.

A question related to this treatment of the principal's experiential background is that asked by Koos of the principals whom he canvassed: "Do you plan to remain in the work of the high-school principal? in educational work? To what line of work, educational or otherwise, do you plan to transfer?" Responses showed that approximately half the principals in the group of smallest high schools (communities with populations ranging from 1000 to 2500) and four fifths of those in the largest high schools (cities of 25,000 to 100,000) accepted the principalship as their life career. Of those planning to transfer, more principals were looking toward the superintendency than toward any other field. The interpretive comment of the author of these data is as follows: [1]

> It is one of the deficiencies of educational work that it is still in the transitional stage of professionalization, permitting anyone engaged in it to move with little or no specialization of preparation from one line to another. The high-school teacher who entered upon his work with professional preparation all too meager for that work aspires to the principalship and attains it too often without additional equipment for its responsibilities, and the high-school principal in turn looks upon his position as a steppingstone to the superintendency. We ought soon to reach a higher stage in the evolution of the high-school principalship as a profession, a stage on which those who plan to engage in it will first be specially equipped for its responsibilities, and, after being so equipped, will not soon seek service in a line of work with clearly different responsibilities for many of which the special training requisite for the high-school principalship can hardly be appropriate. Assurance that such a stage is attainable, even though not at hand, is provided in the large proportions of principals who are planning to remain in their present line of work.

[1] From Leonard V. Koos, *The High School Principal*, pp. 69–70. Houghton Mifflin Company, 1924.

Another element in the principal's stability is his length of stay in a single position. Finch [1] studied this problem in Illinois and Missouri. He reported, "As was to be expected, the period of tenure is positively related to size of school, but even in the larger schools a considerable number of principals are relatively new in their positions." He found that the median number of years the principals of Illinois (excluding Chicago) had been in their present positions was 3; for the principals of Missouri (excluding St. Louis and Kansas City), the median was 2 years. However, the large numbers of schools enrolling fewer than 200 pupils weighted these averages notably. The median tenure of principals in schools enrolling 200 to 500 pupils was 5 years in Illinois, 4 in Missouri; in schools enrolling more than 500, it was 7 years in Illinois, 6 in Missouri.

Length of stay in a given position clearly conditions the development and application of long-term constructive policies. Undoubtedly the principalship in small communities is commonly regarded by the incumbents and the constituents alike as a position transiently held. For the more effective functioning of the schools, such attitudes must be altered. Insofar as transiency is accepted and condoned, it is evidence that the principal is cast in the role of "school shopkeeper."

The duties and responsibilities of the principalship. Any functionary is to be defined primarily in terms of the work that he does. But when we attempt to formulate such a definition of the principal, difficulties are encountered. Examination of the literature on the principalship, both subjective and objective, shows that there is considerable variation from one locality to another in the powers given the principal, the duties expected of him, and the activities in which he actually engages. On the one hand are the many derisive descriptions of the principal as a handy man, a key carrier, and a chalk passer, condemning both the principal and his superiors for not holding a higher conception of the position. On the other hand, there are portrayals of the principal as a responsible organizer and director of educational activity, an executive given large powers and held accountable for results.[2] This latter view of the principal is well conveyed by the principal of the senior high school at Richmond, Indiana, as he enumerates the following five steps in the organization of a high school:

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[1] F. H. Finch, "Tenure of High-School Administrators in Illinois and Missouri," *School Review*, XLI (June, 1933), 459–461.

[2] For an example of this conception of the principalship, see E. P. Cubberley, *School Organization and Administration* (Salt Lake City School Survey), pp. 43–46. World Book Company, 1916.

1. *Selection of personnel.* . . . The principal should be consulted in this matter; he should be interested enough in getting the personnel he wants, sufficiently well informed in the manner of engaging teachers, and able to present his needs so clearly and convincingly, that he *will be* consulted. . . .

2. *Division of labor* so that there will be no round pegs in square holes, no duplication or conflict, and no omission of work that needs to be done. Some principals hesitate to delegate other than purely classroom duties to the personnel, and some teachers consider a division of the extra-class duties an imposition. However, this is just exactly the principal's work—not to do the work of the school, but to *see that it is done.* The peculiar weakness of the principalship is probably here, and to it may be traced the cause of other shortcomings, such as the failure in *professional* leadership and in the supervision of *instruction*, which is due to the fact that time that should be devoted to professional duties is used in doing janitor work, keeping attendance records, managing or coaching athletics, handling petty cases of discipline, etc. These are all things that should be done; the point is that in the division of labor they do not belong to the administrator; if he is doing such things, it is because he is not doing or cannot do what he is employed to do. Some principals do such things because they occupy the time and require little thought or responsibility; others, because they are timorous about telling someone else to do something. The whole situation is a relic of the time when the principal was only a teacher with added clerical duties for which there was added pay. . . .

3. *Instruction of each worker* as to (a) the plan as a whole and (b) his particular duties. . . . Low morale and inefficient work are too often due to the fact that the members of the staff are not given the opportunity to know what it is all about and what the bearings of their own tasks are. . . .

4. *Integration of the personnel.* . . . One feature of a living organism is that it is more than the sum of its parts; co-operation or *solidarity* is the essence of it. In the organization of the staff, therefore, the principal must not stop with the division of labor (differentiation); he must also secure group morale, co-operative attitudes, solidarity, by some features of the organization that will integrate his staff. . . .

5. *Inspection of the operation.* . . . (a) To enable the administrator to keep in touch with the progress of things, (b) to see whether the organization is effective as to form or as to the persons in charge, and (c) to be able to make improvement in the form of the organization and in the skill of the personnel. . . . After the organization is set up and going, inspection in a broad sense with special view to improvement is *the* business of the administrator; the less time he needs to spend on keeping the machine *going* and the more time he can and does spend on making it *go better*, the more efficient administrator he is.[1]

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[1] E. C. Cline, "General Technique of Senior High School Organization," *Educational Administration and Supervision*, XI (April, 1925), 245–250.

The principal's teaching responsibilities. One important reason why the principal is often busy with trivial matters is the fact that the incumbent in the smaller schools is frequently more teacher than principal. He has little time for administrative and supervisory responsibilities and is not expected to assume many of them. The extent to which teaching and study-hall supervision figure in making the principalship what it is has been demonstrated by Koos, from whose investigation Table 72 has been taken.[1] Among the principals of each of groups I, II, and III it will be noted that there is at least one whose entire school day is occupied with teaching and study-hall supervision, and at least one whose entire day is free from such duties. For administrative and supervisory activities, the median principal of Group I has about a quarter of the school day, and the median principal of Group II, about half. In groups III and IV, giving data for principals of schools having median enrollments of 579 and 1158, the situation is far more favorable for the assumption of larger duties by the principal.

TABLE 72

Median and Quartile Percentages of the Schedule Day Available to the Principals in Each Group of High Schools for Administrative and Supervisory Activities

Measure of Tendency	Group I	Group II	Group III	Group IV
Lowest	0.0	0.0	0.0	66.7
First Quartile	12.3	29.5	76.3	100.0
Median	26.9	51.4	88.3	100.0
Third Quartile	47.5	76.5	100.0	100.0
Highest	100.0	100.0	100.0	100.0

Eikenberry [2] found that the median number of periods taught per day by the high-school principals who responded to his inquiry were as follows: those in high schools enrolling 100 or fewer, 5; 101–200, 4; 201–300, 3; 301–500, 2; 501 or more, 0. Judged from this study of school practice, as also from that made by Koos, the principalship is generally a part-time profession in schools with enrollments of fewer than 500, and, going from the smallest schools to larger and larger ones, the person who is singled out of the teaching ranks to discharge certain functions of leadership and organization within the school is granted larger and larger portions of time for those purposes. It follows logically that in still larger schools the full-time principal is granted one or more part-time or full-time assistants—vice-principals, deans, counselors, clerks.

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[1] *The High School Principal*, p. 72, Table XIV. Houghton Mifflin Company, 1924.

[2] *Status of the High School Principal*, p. 54, Table 55.

The soundness of this practice of differentiating the amount of time given to the work of the principalship according to the size of the school cannot be questioned. It may well be doubted if modal practice grants enough time in smaller schools, but as yet there is no approach to a standard objectively derived.

Division of responsibility between principal, superintendent, and board of education. Another reason why the principal is often occupied with minor matters is his common subordination to a superintendent, who, as the executive officer hired by a lay board of education to take charge of the school system, may very largely determine the nature of the principalship. In some states there are high-school districts in which the principal is directly responsible to the board of education and is the chief educational officer. Such is the control in the union high schools of California, the county high schools of Montana, and the township and community high schools of Illinois.[1] At this point mention should be made also of the high schools in rural or village districts which are presided over by officers commonly called *supervising principals.* The supervising principal is the sole administrator of both elementary and secondary grades, combining in himself the functions commonly exercised by principal and superintendent. Even then, he commonly carries teaching responsibilities. In an investigation covering 238 of these officials in Ohio, McMillan [2] found them teaching a median of 4.8 periods per day. The median enrollment of their high schools was 53.

In general, the high-school principal is responsible to the superintendent; in very large cities, there is an assistant or district superintendent to whom he is immediately responsible. Under such circumstances, the principalship may range all the way from a high-grade clerical position involving little discretionary authority [3] to a carte blanche involving complete freedom to select and manipulate educative influences.

One of the critical problems of administration is to give the principal real professional responsibility and yet not so much independence as to endanger articulation with elementary and specialized schools.

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[1] For an excellent statement of the desirable working relationships of principal and board in these high schools, see the editorial quotation from a pamphlet by Arthur W. Clevenger, high-school visitor for the University of Illinois, *School Review*, XLII (September, 1934), 484–487.

[2] H. L. McMillan, "The Teaching Load of the Principal of the Rural and Village High Schools of Ohio," *Educational Research Bulletin* (Ohio State University), V (March 31, 1926), 143–146.

[3] For a portrayal of the principalship so limited, see the *Portland School Survey*, Chapter III and Chapter VIII, subdivision 6. World Book Company, 1915.

A recent extended investigation by Ayer [1] shows how little agreement there is in regard to the functions of principal and superintendent and illustrates the great range of administrative duties which the principal is sometimes called on to perform. Ayer compiled "A Checking List of 1000 Duties of School Administrators" and submitted it to a large number of superintendents, high-school principals, elementary-school principals, and supervising principals all over the country, asking his correspondents to check the duties which they performed. From the superintendents and high-school principals there were received 418 replies and 136 replies, respectively. They represented all sizes of school systems; but from the fact that only 29 per cent of the superintendents and 24 per cent of the principals did no teaching, we may infer that the great majority were in relatively small systems.

TABLE 73

CLASSIFICATION OF ADMINISTRATIVE DUTIES, WITH AVERAGE NUMBERS PERFORMED BY SUPERINTENDENTS AND HIGH-SCHOOL PRINCIPALS [2]

DIVISION OF DUTIES	NUMBER LISTED	AVERAGE NUMBER PERFORMED BY SUPERINTENDENT	AVERAGE NUMBER PERFORMED BY PRINCIPAL
I. General control	101	49	36
II. Executive management	169	89	83
III. Business management	153	64	42
IV. The teaching staff	86	49	37
V. The pupils	120	53	53
VI. The curriculum	70	34	29
VII. Special activities	79	38	39
VIII. Instruction	106	48	42
IX. Special services	116	38	33
Total	1000	462	394

Table 73 shows Ayer's main categories of duties, with the numbers of duties classified under each, and the average number performed by superintendents and principals. Significant for present consideration is the absence of sharp distinctions between the two groups. The greatest difference occurs in the duties classified as "Business Management," in which field the principals perform two thirds as many duties as do the superintendents.

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[1] Fred C. Ayer, "The Duties of Public School Administrators," *The American School Board Journal*, Vol. LXXVIII: February, 1929, pp. 39–41, 137–138; March, 1929, pp. 39–41, 137; April, 1929, pp. 39–41; May, 1929, pp. 51–53; June, 1929, pp. 58–60. Vol. LXXIX: August, 1929, pp. 52–53, 119–120; October, 1929, pp. 33–34, 136; December, 1929, pp. 39–40, 128. Vol. LXXX: February, 1930, pp. 42–44, 141–142; March, 1930, pp. 43–44, 132, 135; May, 1930, pp. 43–44.

[2] *Ibid.* Adapted from February, 1929, p. 41, Table III, and p. 137, Table IV.

Lest it be imagined that these main divisions include some duties performed almost universally by one officer and others performed almost universally by the other, extracts from a number of Ayer's detailed tables have been incorporated into Table 74 (page 466) to illustrate the overlapping on all kinds of duties. The numbering is the same as in the original tables; this table simply takes the first four, five, or six duties from each of several tables. A study of Table 74 shows that the superintendency and the principalship in practice are ill-defined. The first group of duties, classified as "Executive Co-operation with Board" might well seem to be the special prerogative of the superintendent; yet large percentages of the principals claimed, also, to be performing them. On the other hand, the last group of duties, listed under "The Discipline of Pupils," seems to be of such a local nature and so largely performed for the successful administration of a single school that it is surprising to find such duties performed by almost as large percentages of the superintendents as of the principals. It is difficult to see in these extracts from Ayer's tables evidence of "the complementary nature of principal and superintendent" that is described by Cubberley [1] thus:

> The superintendent of the schools is primarily responsible to the school board and to the people of the whole city for the successful conduct of the whole school system; the principal is primarily responsible to the superintendent for the successful conduct of a single school.

Edmonson [2] recognizes the difficulty of dividing and allocating responsibility as between superintendent and principal and effecting any standardization, because of the great variations in the size of school systems. He believes that in the smaller school systems the superintendent should be looked on as head of the high school and of all the schools, and that under such circumstances "the principal with well-defined supervisory and administrative duties is a 'fifth wheel.' . . . There is no need for two trained officials for the handling of the supervisory and administrative duties in the smaller school systems." Too often, he says, even the superintendent in such a situation is mostly a chief teacher, and great gains would be made if the board of education could be induced to recognize administrative and supervisory duties in the system and the need for *one* trained person being given time to handle them.

[1] E. P. Cubberley, *The Principal and His School*, p. 19. Houghton Mifflin Company, 1923.

[2] J. B. Edmonson, "What Shall We Expect of the High School Principal?" *The American School Board Journal*, LXV (September, 1922), 39–40, 121.

In larger school systems (how large he does not say) Edmonson would have the principal recognized as a specialist in the administration and supervision of the high school, consulted by the superintendent when

TABLE 74

PERCENTAGES OF SUPERINTENDENTS AND HIGH-SCHOOL PRINCIPALS WHO PERFORM VARIOUS ADMINISTRATIVE DUTIES

A. Executive Co-operation with Board [1]

Duty	Superintendents	High-School Principals
1. Attend board meeting	98	60
2. Recommend items to board for approval	97	73
3. Confer with members of board	95	79
4. Prepare report for board	94	61
5. Advise teachers as to policies	94	88
6. Discuss items of policy in board meeting	91	49

B. The Purchase of Supplies and Equipment [2]

Duty	Superintendents	High-School Principals
1. Interview salesmen of supplies	95	78
2. Order textbooks	93	74
3. Study price and quality of supplies	93	66
4. Check bills for supplies	85	60
5. Report data to book companies	82	79

C. The Employment of Teachers [3]

Duty	Superintendents	High-School Principals
1. Consider applications	95	66
2. Examine credentials of applicants	94	74
3. Interview applicants	93	70
4. Recommend list of teachers to board	92	46

D. The Discipline of Pupils [4]

Duty	Superintendents	High-School Principals
1. Interview pupils referred by teachers	89	95
2. Investigate disciplinary cases	86	89
3. Adjust pupils' grievances and complaints	86	94
4. Instruct teachers in disciplinary procedure	81	95
5. Adjust differences between teachers and pupils	69	88
6. Decide disciplinary penalties	66	73

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[1] Fred C. Ayer, "The Duties of Public School Administrators," *The American School Board Journal*, Vol. LXXVIII (March, 1929), p. 39, Table V.

[2] *Ibid.*, May, 1929, p. 52, Table XIX. [3] *Ibid.*, June, 1929, p. 58, Table XXIII.

[4] *Ibid.*, Vol. LXXIX (August, 1929), p. 119, Table XXXI.

general educational problems involve secondary education, advising with the superintendent on contemplated innovations in his school, but communicating with the board of education only through the superintendent. He says:

> We find the majority of the principals in twenty of the larger Michigan high schools performing the following important duties that are usually performed in smaller systems by the superintendent:[1]
>
> 1. Interviewing candidates for high-school teaching positions.
> 2. Selecting for recommendation new teachers to fill high-school vacancies.
> 3. Selecting for recommendation substitute teachers.
> 4. Recommending promotions in positions for high-school teachers.
> 5. Recommending increases in salaries of high-school teachers.
> 6. Recommending suspension and dismissal of teachers.
> 7. Examining, trying out, and recommending textbooks for high-school classes.
> 8. Making and recommending courses of study.
> 9. Determining and recommending requirements for high-school graduation.
> 10. Selecting and recommending school equipment.
> 11. Extending supervisory control to all student collateral activities of the high school.
> 12. Extending supervisory control to all funds of high-school organizations.
> 13. Calling separate meetings of the high-school teachers' staff, and conducting the same.
> 14. Arranging for and presiding at commencement exercises of the high school.

As conditions which sometimes discourage the principal from raising his office to the professional level indicated by these duties, Edmonson mentions the following: insufficient clerical assistance; inadequate office equipment; lack of freedom to delegate to teachers the performance of duties other than those connected with classroom teaching; lack of sufficient help of an expert character to supervise study hall, library, lunchroom; lack of recognition by superintendent and board of the definite responsibility of the principal for performing supervisory functions and certain large administrative duties; failure on the part of superintendent and board to treat him so as to cause teachers, pupils, and patrons to feel that he is an expert and holds an important position. Edmonson also recognizes that the principal sometimes promotes these conditions by not having an adequate conception of his job.

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[1] Although the first six of Edmonson's list of duties were quoted on page 358 for their illumination of responsibility for teacher selection, it is necessary to cite them again here in order to complete his brief portrayal of the principalship.

Koos has attempted to demonstrate objectively the distinctions between principalships of large and small high schools, as shown in Table 75.[1] A study of the table shows that there is a larger extent of location of initiative in the principals of Group IV than in those of Group I. For the first four functions, which are less critical, it may be noted that the small percentages of superintendents who exercised initiative in the schools of Group I are entirely absent from Group IV; and that is practically true, also, of principal and superintendent working together. The considerable percentages of "other" persons exercising initiative in controlling debating, dramatics, and so on and in keeping records and reports are due to the frequent delegation of such duties to subordinates. Hence it may be said that initiative for these activities was originally located in the principal and was merely reassigned by him.

TABLE 75

PERCENTAGES OF 66 LARGE HIGH SCHOOLS (GROUP IV) AND OF 104 SMALL HIGH SCHOOLS (GROUP I) IN WHICH INITIATIVE IN CERTAIN ACTIVITIES IS LOCATED IN THE PRINCIPAL, IN THE SUPERINTENDENT, IN THE BOARD, IN PRINCIPAL AND SUPERINTENDENT WORKING IN CONJUNCTION, AND IN OTHER OFFICIALS OR COMBINATIONS OF OFFICIALS

ACTIVITY	GROUP	PRINCIPAL	SUPERINTENDENT	BOARD	PRINCIPAL AND SUPERINTENDENT	OTHER
Organizing the class schedule	IV	92.4	—	—	—	7.6
	I	73.1	10.6	—	12.5	3.8
Controlling debating, dramatics, etc.	IV	72.7	—	—	1.5	25.8
	I	59.6	14.4	—	8.7	17.3
Keeping records and reports	IV	71.2	—	—	—	28.8
	I	79.8	6.7	—	5.8	7.7
Ordinary disciplinary control	IV	81.8	—	—	—	18.2
	I	80.8	4.8	—	7.7	6.7
Disciplinary control involving suspension or expulsion	IV	39.4	—	3.0	28.8	28.8
	I	28.8	26.0	7.7	14.4	23.1
Selecting new high-school teachers	IV	13.7	30.3	1.5	48.5	6.1
	I	20.2	43.3	12.5	4.8	19.2
Visiting classwork for supervisory purposes	IV	60.6	—	—	27.3	12.1
	I	32.7	29.8	2.9	26.9	7.7
Conferring with teachers about classwork	IV	74.3	—	—	12.1	13.7
	I	49.0	21.2	—	26.0	3.8
Planning the course of study	IV	62.1	4.6	—	21.2	12.1
	I	41.3	20.2	—	23.1	15.5

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[1] *The High School Principal*, p. 88, Table XVI. Houghton Mifflin Company, 1924.

For the last five functions—more critical ones—the principals of Group IV exercise initiative more frequently than do those of Group I, but the distinction is not so marked as may be hoped for by those who wish to see a higher professionalization of the office.

From the investigations cited, it is apparent that there is considerable disagreement concerning the nature of the high-school principalship. The basic reason for the present confusion is doubtless the rapid evolution of all the educational professions incident to the expansion of the curriculum, the approach to universal secondary education, the development of educational science, and other forces of these modern times which are contributing to the complexity of educational work. Until recent years the principal was the principal *teacher;* it is not to be expected that he will suddenly and completely emerge from that status.

Distribution of the principal's time. Several studies of the principal's time expenditure have been made by having principals keep a diary for a day or a week, or by securing their estimates of the time spent on the various phases of their work. The limitations of these investigations are great, but the results have some value; hence they have been drawn on to make clearer the nature of the principalship.

In an investigation of the way principals of the North Central Association of Colleges and Secondary Schools spend their time, Davis [1] reported that "in a typical average day the typical principal" spends his time somewhat as follows: approximately 40 minutes inspecting the building; from 40 to 60 minutes supervising instruction; 90 minutes teaching classes; 40 minutes taking charge of session rooms; 60 minutes carrying on routine office work; and 30 minutes each for holding conferences with teachers, holding interviews with pupils, being interviewed by callers, attending student collateral activities, and attending to civic and out-of-school professional matters.

Morrison found the percentage distribution of the median Ohio principal's time to be as shown in Table 76,[2] page 470.

A significant part of the report of an investigation made in California by R. R. John [3] is quoted in Table 77, page 470. The small group of principals should be considered decidedly comparable: they are all directly responsible to a board of education, having no city superintend-

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[1] C. O. Davis, "The Duties of High-School Principals," *School Review*, XXIX (May, 1921), 344.

[2] J. C. Morrison, *The School Principalship in Ohio Cities and Exempted Villages*, p. 43, Table 35. Ohio State University Studies in Education, 1926.

[3] Rolland R. John, "The Principal's Load," *School Review*, XXXI (December, 1923), 748–755.

TABLE 76

Percentage Distribution of the Time of Ohio Principals

Type of Duty	Per Cent
Clerical duties	20.0
Administration and organization duties	34.0
Teaching	12.0
Classroom supervision	20.0
Other duties	14.0
Total	100.0

ent over them; the enrollments of their schools range from 150 to 349; all instructional duties, including study-hall supervision, occupy so little time as to be characterized as "negligible." Yet the variation of time expended within the middle 50 per cent is large, the principals at the 75 percentiles devoting from two to three times as many hours per week to almost every class of duty as do the principals at the 25 percentiles. How great must be the variations in the total range!

For those duties and activities which may be classified as "office work," Figure 39 represents the full range of principals. The principals depicted had charge of small, middle-sized, and large high schools, but

TABLE 77

Hours per Week Expended in Certain Duties by 13 California Principals of Independent High-School Districts in Schools Enrolling from 150 to 349 Pupils

Duty	Median Number of Hours	Range of Middle 50 Per Cent
Administration		
1. Management of school plant	5.50	3.50 – 7.25
2. Administration of school policies	5.00	4.00 – 11.00
3. Other administrative duties	5.75	3.50 – 7.50
Total	18.25	8.25 – 22.00
Supervision		
1. Visiting classes	5.75	3.50 – 9.00
2. Supervision of student activities	3.50	1.75 – 5.00
Total	13.25	6.50 – 16.25
Clerical duties		
1. Correspondence	4.75	2.75 – 5.00
2. Records and reports	2.75	2.00 – 5.75
Total	9.00	4.75 – 12.00
Professional load		
1. Conducting or attending professional meetings	2.50	1.50 – 3.00
2. Professional reading	3.25	2.50 – 5.75
Total	8.00	5.75 – 11.00

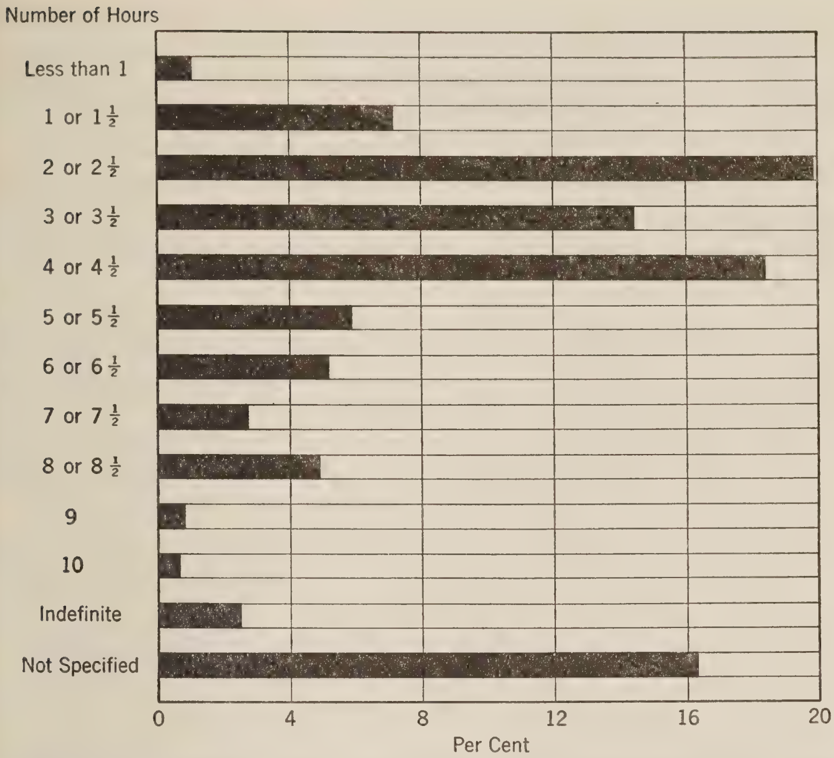

FIGURE 39. Percentage Distribution of 522 Principals According to the Approximate Number of Hours per Day Devoted to Office Work

over two thirds of them were in schools enrolling over 500 pupils and almost three fourths of them did no teaching whatever.[1] Instructional load, therefore, could hardly have been a very important factor of the extreme variability in time devoted to office work. There are, of course, other factors which may have a marked influence on the principal's time expenditure for this class of activity; the number of clerks and other assistants is an especially important factor. It must be conceded, however, that the principal can do considerable toward shaping such factors. Reavis and Woellner evidently consider the principals too largely "office principals," and they present the following data to analyze the situation: [2]

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[1] William C. Reavis and Robert Woellner, "The Time and the Personnel Available for Administrative Duties in Secondary Schools," *School Review*, XXXVI (October, 1928). Computed from tables I and II, pp. 577 and 578.

[2] "Office Hours of Secondary-School Principals," *School Review*, XXXVI (November, 1928), 664.

> Twenty-five per cent of the principals maintain regular office hours for pupils; 21 per cent, for teachers; and 14 per cent, for parents and visitors. Twenty-three per cent of the principals attempt to systematize their office work by the public announcement of their office hours. Six per cent of the principals post notices of their office hours on their office doors.

This lack of definite office hours tends to make it difficult for the principal to find time for duties outside the office, and it decreases the likelihood of his having periods for uninterrupted study of large problems of administration.

> The principals make themselves available for conferences whenever the pupils are free to go to the administrative offices without interference with classroom work. This means that the principals interview pupils before the opening of school, after the dismissal of school, and between class periods during the day. The principals thus tend to make themselves constantly available, and it becomes increasingly difficult for them to escape the complex of petty duties which challenge the time and the attention of the office man.[1]

The truth is that insofar as the principal is not occupied with a schedule of instructional duties and study-hall supervision, he is himself the chief determinant of the distribution of his time within the school day and also of the amount of time he will spend on school duties outside the school day. It was demonstrated in the chapter on the teaching load that the greatest cause of variability in the hours of the teacher's working week was the teacher's control of his time outside the approximate thirty hours per week which the school controls and definitely schedules. How much greater freedom the principal has! He must, in general, be in his school as many hours as the teacher, but he makes his own schedule—or fails to make one. The distribution of the principal's time depends most of all on his own sense of values and his ability to delegate wisely such administrative and clerical tasks as can be performed by clerks, teachers, and assistant administrators. Lacking these assistants, he devotes too much time to work at the clerical level, or he engages too largely in community activities, or he loses himself in school statistics, or he becomes too deeply concerned in interschool competitions. Educational literature has urged that most of all he neglects the supervisory function. In his freedom to order his own time and in the undoubted possibilities of his office for shaping a great social institution, we see the need for careful, specialized training of the principal. The possibilities of his position are such as undoubtedly call for a highly professionalized incumbent.

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[1] *Ibid.*, p. 660.

While it is the general purpose of this book to promote effective high-school administration through a clarification of function and the establishment of principles, it is hardly possible to go into greater detail in assisting the principal to find a proper apportionment of his time than to refer to a few publications bearing on that specific purpose.

Three numbers of the *Research Bulletin of the National Education Association* [1] have been devoted to the principal and his work, treating the office at both the elementary-school and the secondary-school level, summarizing both research and opinion, and presenting extensive bibliographies.

Fillers [2] has prepared lists of curriculum and extracurriculum "managerial duties" which he classifies as "clerical," "general in control," and "inspectorial and co-ordinating." He then indicates which duties can be delegated to a clerk, which can be delegated to teachers, and which must be performed personally by the principal.

Cubberley [3] has a number of helpful suggestions to offer, especially with reference to the development and following of a daily schedule which makes ample provision for the larger administrative and supervisory duties.

Stanton [4] outlines time-saving administrative practices in a number of specific situations where the principal's organizing ability, foremanship, and capacity for wise delegating are called on.

This type of helpful literature is not abundant, but it does provoke the thought that the principal is comparable in many respects to a business manager and that definite training in the elements of office management should be one of the constituents of his preparation.[5]

Traits and qualities of the principal. Without doubt certain personal qualities play at least as large a part in the principal's success as his training, and probably the failures among principals, like the failures among teachers, can more often be traced to the presence or absence of certain traits of character or personality than to inadequacies of knowledge or technique. Numerous extended subjective discussions of this aspect of the principalship have been written, but the subject does not lend itself easily to objective treatment. Specific exposition of the topic is limited here to the following statement of a consensus of opinion.

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[1] "The Principal Studies His Job," VI (March, 1928), 82–147; "The Principal as a Supervisor," VII (November, 1929), 279–348; "The Principal at Work on His Problems," IX (March, 1931), 94–159.

[2] H. D. Fillers, "The Managerial Duties of the Principal," *School Review*, XXXI (January, 1923), 48–53.

[3] *Op. cit.* See especially Chap. III and Chap. X.

[4] Edgar A. Stanton, "Saving Time in Office Routine," *Elementary School Journal*, XXVIII (December, 1927), 263–272.

[5] A frequently mentioned text in this connection is W. H. Leffingwell's *Office Management: Principles and Practice*. A. W. Shaw Company, 1925.

An appointment secretary[1] of a large teachers' college secured, through individual interview with 40 superintendents or board members who were looking for school administrators, statements concerning the qualities which lead to appointment as supervisors and administrators. In Table 78 there are listed all qualities mentioned by 2 or more, together with the percentage of those interviewed who mentioned each quality. Morrison states it as his opinion that appointments to positions as school supervisors and administrators are largely determined by the character traits of the applicants.

TABLE 78

QUALITIES MENTIONED BY 40 SUPERINTENDENTS AND BOARD MEMBERS AS DESIRED IN SUPERVISORS AND ADMINISTRATORS

QUALITY	PERCENTAGE MENTIONING
Executive ability	62.5
Leadership	40.0
Ability to supervise	37.5
Broad experience and training	30.0
Ability to get on with people	25.0
Organizing ability	15.0
Student of educational problems	15.0
Willingness to assume responsibility	12.5
Foresight	10.0
Personality which inspires confidence	10.0
Ability to discipline	7.5
Ability to mix	5.0
Consideration for opinions of others	5.0
Courage	5.0
Initiative	5.0
Poise	5.0
Vision	5.0

Further formal treatment of the subject of the personal equipment of the high-school principal seems unnecessary. From the discussion of his duties, from the exposition of the various functions of administration, from the treatment of the many relationships, both critical and routine, with all of which this book deals, there may be derived a list of personal characteristics needed by the principal which are far more meaningful than any detached summary that could be given here, because their actual use is evident. An interneship should be valuable for revealing the desired qualities or developing them.

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[1] R. H. Morrison, "Qualities Leading to Appointment as School Supervisors and Administrators," *Educational Administration and Supervision*, XII (November, 1926), 505–511.

SUBORDINATE ADMINISTRATIVE OFFICERS

Assistants to the principal, with functions relating to the school as a whole. The administrative corps of a large, well-organized high school may, in general, be divided into two groups. On the one hand are those assistants to the principal who exercise functions relating to the school as a whole, such as assistant principals or vice-principals, counselors, deans of girls, deans of boys, and directors of extracurriculum activity. On the other hand are the department heads, each of whom exercises functions relating to the curriculum department for which he is appointed. Parallels to this division of administrative duties may be seen in business or military organizations.

How large must a school be before one, two, three, or more administrative assistants are needed? Judged from the exposition of the principalship just closed, no objective answer is available. At present the answer depends on how the community supports education, what definition and significance the various administrative functions have in the minds of those administratively and legislatively responsible for the schools, and the state of advancement and acceptance of educational science and philosophy. Conditioned so fundamentally and so subjectively, practices may be expected to show wide variance.

The findings of the survey of practice made by Reavis and Woellner[1] are epitomized in Table 79, page 476. This table indicates that, in general (though not with entire consistency), the larger the school, the greater the probability that it will be provided with the administrative assistants named. However, practice varies widely, even with respect to the officer most frequently named—the assistant principal. Considerable percentages of schools enrolling over 1000 pupils have no assistant principal. The situation under discussion, however, is one in which we may well ask, What's in a name? Reavis and Woellner show that 76 per cent of the assistant principals are performing the duties of either a dean of girls or a counselor of boys. Probably it would be equally true that in many schools having no assistant principal so-called, the duties of that office, whatever they may be, are performed by a dean of girls or by a counselor of boys. As the table reads, it is apparent that there

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[1] "The Time and the Personnel Available for Administrative Duties in Secondary Schools," *School Review*, XXXVI (October, 1928), 576–592.

TABLE 79

PERCENTAGES OF HIGH SCHOOLS OF VARIOUS SIZES WHICH HAVE THE ADMINISTRATIVE ASSISTANTS INDICATED

High-School Enrollment Group	Number of Schools	Percentages of Schools Having			
		Assistant Principals	Deans of Girls	Counselors of Boys	Directors of Extra-curriculum Activities
1 (4–100)	9	11.1	11.1	0.0	11.1
2 (101–200)	29	31.0	34.5	3.4	3.4
3 (201–300)	55	25.5	30.9	3.6	14.5
4 (301–500)	75	46.7	21.3	8.0	10.7
5 (501–700)	72	31.9	36.1	11.1	6.9
6 (701–1000)	87	55.2	49.4	9.2	14.9
7 (1001–1500)	95	75.8	52.6	16.8	20.0
8 (1501–2000)	57	80.7	57.9	12.3	19.3
9 (2001–6500)	43	86.0	58.1	51.2	25.6
All schools	522	54.6	42.3	13.4	14.8

are assistant principals in more than half the high schools with enrollments of more than 700, deans of girls in more than half the high schools with enrollments of more than 1000, and conselors of boys in a majority of the high schools enrolling more than 2000. Officers bearing the latter title and directors of extracurriculum activities are found in only about a seventh of all the schools represented.

The average number of administrative officers per school (including the principal) ranges from 1.33 for the smallest schools to 3.21 for the largest schools. It being recognized that such figures do not give an accurate picture of the average administrative personnel available, there were presented tabulations of the number of periods taught by each of the administrators. As would be expected, there is a decrease in the instructional load with the increase in the size of school. Summarizing the data, we find that:

64.6 per cent of the assistant principals teach 2.4 periods (median) per day
80.5 per cent of the deans of girls teach 3.0 periods
74.3 per cent of the counselors of boys teach 3.2 periods
85.7 per cent of the directors of extracurriculum activities teach 3.2 periods

Supervision of study halls was not taken into account in the investigation. However, without considering this or other influential factors, it is fully evident that there is far less administrative energy proportionally in the 1.33 persons bearing administrative titles in schools enrolling fewer than 100 than in the 3.21 such persons in schools enrolling more than 2000. Just as the principal in the smallest schools is more teacher than principal, so also is the dean of girls more teacher than anything else in the same schools.

Concerning the duties and activities of these assistant administrators of the high school, objective evidence is scarce. We have, however, Van Eman's[1] tabulation of the duties of 52 assistant principals in large junior and senior high schools in Ohio, presented in its significant aspects in Table 80. A study of the table shows that the assistant principalship must be in a very unstandardized state, no duty being performed by more than half of the assistant principals. The duties listed in the table are difficult to characterize further than to point out that they are typical of the principalship, that they are above the clerical level, and that they do not include such functions as supervision of instruction, selection of teachers, or meeting parents, all three of which may be considered as more critical and perhaps more directly related to the success or failure of the principal than any of those listed. Van Eman says that "in the majority of cases, the duties of the assistant principals are defined entirely by the principal of the school. In only 7 junior high schools and 6 senior high schools were the duties of the assistant principal defined to any considerable measure by the board of education."

TABLE 80

DUTIES MOST FREQUENTLY PERFORMED BY ASSISTANT PRINCIPALS IN JUNIOR AND SENIOR HIGH SCHOOLS, WITH PERCENTAGES PERFORMING EACH

DUTIES	PERCENTAGES PERFORMING
Checking pupils' schedules	63
Supervision of girls' clubs	60
General supervision of scholarship records	55
General supervision of attendance	48
Supervision of extracurriculum activities	48
General supervision of teachers' reports	46
Supervision of boys' clubs	40
General supervision of office	38
Teaching	35
Examination of textbooks	28
Supervision of standardized testing	25
General supervision of faculty advisers	23
Making curricula	20
Holding conferences with heads of departments	18

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[1] Charles R. Van Eman, "The Function of the Assistant High School Principal and Other Assistant Executives," *Educational Research Bulletin* (Ohio State University), V (March 31, 1926), 148–150.

Should the office be more standardized? The question is difficult to answer, but there are at least some important considerations for leaving quite largely to the discretion of the principal what its nature should be. If we accept the concept that ultimate responsibility for the school should rest with the principal, it seems that he should have as large freedom as possible in the delegation of functions to his assistants. Given the opportunity, he will doubtless select such an assistant principal, and assign him such duties, as will effect a complementary relationship with himself. Few men have equal ability for all the principal's functions. In the interest of efficient performance, why should not the principal have an assistant who is capable in the types of duties for which *he* has the least ability? Whatever the division of duties may be, it seems that the principal must stand in a delegating, reviewing, inspectorial, and advisory capacity toward his assistant, and he himself must represent the school in relations with superior authorities, with the public, and in the more critical relations with the teachers.[1]

Of the other subordinate administrative officers, the dean of girls and the counselor have been widely discussed in educational literature. Because much of the comment on the assistant principal applies to them and their functions have already been described in Chapter VI (see especially Table 25, page 230), they are not discussed here.

Heads of departments. Eikenberry [2] found that few schools with enrollments of fewer than 300 professed to have heads of departments with definite time allowed for discharge of their duties. Among those with enrollments of 301–500, the percentage of such schools was 25.0; among schools enrolling 501–1000, 33.0; among schools enrolling 1000–2000, 57.4; and among schools enrolling 2001 or more, 68.0. To the principals of a number of high schools enrolling more than 1000 students Deffenbaugh [3] sent an inquiry pertaining to department heads.

> Of 124 principals replying to the questionnaire, 108 reported that they have department heads in their high schools. The number of departments to a school varies from 9 to 18. The median number is 7.

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[1] Two other analyses of the duties of the assistant principal are described in the following references:

Lucy Church Carr, "The Work of a Woman Assistant Principal in a Six-Year High School," *School Review*, XXXVIII (November, 1930), 700–706.

H. W. Emswiler, "The Vice-Principal in the Junior High School," *Educational Research Bulletin* (Ohio State University), X (April 29, 1931), 235–242.

[2] *Status of the High School Principal*, p. 49, Table 48.

[3] W. S. Deffenbaugh, "A Few Data Regarding Heads of Departments in Large High Schools," *City School Circular*, No. 10. United States Bureau of Education, November, 1928.

English and mathematics led the list in frequency. Koch's study [1] supports these findings of practice.

The department head is primarily a teacher, and in some schools he is so largely occupied with teaching that he has little or no time to act in the capacity which his title implies. Horrall [2] found that expert teaching ability figures most prominently in the choice of department heads, as is indicated by his list of reasons for choice, with the frequency each was mentioned:

Superior teaching ability	32
Administrative ability	19
Length of service	6

Koch found that only 33.7 per cent of department heads held graduate degrees and that a considerable percentage were heads of departments which do not correspond to their undergraduate or graduate specialization.[3] Such practice carries the implication that academic scholarship often does not figure markedly in the choice of department heads.

As to the classification of the pupils which department heads teach, Horrall says:

> The general opinion seems to favor the assignment of department heads to advanced classes. In only 12 schools do department heads teach first-year classes; in 15 schools they teach second-year classes; in 27 schools they teach third-year classes; in 34 schools they teach fourth-year classes.

He criticizes this emphasis in assignment, saying it means that the administrators of most of the secondary schools prefer an organization which provides the *best* teaching talent in the last years of the high school, thus placing a premium on the instruction given the graduating product rather than the entering product. He urges that the department head should teach classes in Grade IX, not only because it is his opinion that those pupils need the best teaching but because the head would then be in a better position to articulate his department with the elementary school. That this point is well taken will be conceded by all who feel that this articulation is more essential than articulation with college or university.

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[1] Harlan C. Koch, "Some Aspects of the Department Headship in Secondary Schools," *School Review*, XXXVIII (April, 1930), 263–275.

[2] A. H. Horrall, "Department Heads in Secondary Schools," *The American School Board Journal*, LXXVII (November, 1928), 59.

[3] *Op. cit.*, p. 272.

The recognition of the department head as an administrative and supervisory officer may be judged partially by taking note of the time allowed him for the assumption of nonteaching responsibility. Deffenbaugh [1] found 18 schools in which the teaching load of department heads was less than 3 classes a day, 30 in which it was just 3 classes, 40 in which it was 4 classes, 16 in which it was 5 classes, and 2 in which it was 6 classes. This practice accords in a general way with Horrall's finding [2] that in 70 per cent of the schools he studied the department heads taught one less class than the regular teaching load of their schools.

TABLE 81

ADMINISTRATIVE AND SUPERVISORY ACTIVITIES OF DEPARTMENT HEADS, WITH PERCENTAGE OF SCHOOLS IN WHICH EACH IS PERFORMED [3]

Activity	Percentage of Schools
1. Visiting classrooms for supervisory purposes	95
2. Holding conferences with individual teachers	69
3. Giving demonstration lessons when visiting classrooms (done by some or all heads in a school)	47
4. Occasionally giving demonstration lessons before a group of teachers	15
5. Holding conferences with their teachers	88
6. Preparing courses of study or syllabi	73
7. Preparing illustrative lesson plans	75
8. Laying out units of work	63
9. Rating teachers	51
10. Discussing ratings with the teachers	41
11. Interviewing candidates for teaching positions	44
12. Recommending teachers for appointment	50
13. Recommending salary increases	19
14. Recommending textbooks	97

The part played by these administrative assistants is indicated by the list of their activities given in Table 81. From the percentages of schools in which each activity is performed one may judge that there is somewhat closer agreement as to the functions of a department head than is the case with the assistant principal. Visiting teachers for supervisory purposes and recommending textbooks are practically universal in their frequency, while four other activities related to supervision of instruction and curriculum are common to more than two thirds of the department heads. The activities numbered 9 to 13 inclusive symbolize larger authority over personnel and are exercised in but half or fewer of the schools.

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[1] *Op. cit.*

[2] *Op. cit.*

[3] Adapted from Deffenbaugh.

In schools with staffs of 30 or more it is difficult to believe that a school can function efficiently without department heads appreciably distinguished from the rest of the teaching staff by their authority, by a time allowance for the exercise of administrative and supervisory responsibility, and by an appropriate salary differential in their favor. With a more detailed knowledge of subject values, of materials, and of methods within their particular fields than can be possessed by the principal, they are in position to co-ordinate and improve the teaching in a department as the principal cannot do. Furthermore, the principal does not have adequate time for such detailed thinking and such detailed performance as the activities of department heads imply.[1]

TEACHER PARTICIPATION IN ADMINISTRATION

Principles. What shall be the position of the teacher in such provision for administration as we may make? Shall it be taken for granted that teachers are simply one of the elements to be administered, that they are tools or forces to be molded, moved about, and placed to best advantage for the production of educational results? Shall they be like soldiers, receiving commands and carrying them out? The answers depend on one's point of view. In the past two decades this subject has received much attention in educational literature and discussion, the view most frequently reiterated being that democracy should prevail in school administration and that teachers should share in the exercise of administrative control over the schools.[2] Some of the expressions of views have come from organizations of teachers, representing in part a growth in class consciousness which naturally asserts itself by showing a desire to condition the environment of its group. Some expressions of the desirability of teacher participation have come from enlightened principals and superintendents who sense the futility of attempting to inaugurate any new policy without the sympathy and understanding of their teachers. And since these are times of rapid change and much experimentation in education, new policies and various sorts of innovations come frequently.

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[1] For an impressive and detailed account of activities and accomplishments of department heads in a single school, the San Diego Senior High School, see John Aseltine, "The Duties of a Department Head in a Large City High School," *School Review*, XXXIX (April, 1931), 272–279.

[2] For a recent statement of fundamental principles the following reading is especially recommended: John Dewey, "Democracy and Educational Administration," *School and Society*, XLV (April 3, 1937), 457–462.

One of the important considerations compelling democracy in school administration is the relative equality and identity in the occupations of teacher and administrator. Both are on the professional level, characterized by superior intelligence and advanced training, and both must be animated by the same ideals for the improvement of children and society. Under such conditions the control of the relationships of the two groups by the authoritarian principle is out of place. Members of the same profession, it is impossible that one should serve merely as an instrument in the hands of the other. The employment of such a principle would simply de-professionalize teaching and exalt the low aims of job-holding and self-aggrandizement. It is calculated to create indifference on the part of teachers; they do not accept responsibility. On the other hand, co-operation between teachers and administrators in the formulation and execution of school policies is a principle calculated to promote the professionalization of teaching. The teacher is brought into contact with the wider implications of his work and thereby surveys his activities in the classroom in a truer perspective. Helping to plan curriculums, choose textbooks, and direct the extra-class life of the school compel a consciousness of ultimate goals in education. The realization that constructive criticism of existing procedures is welcomed and expected challenges the teacher's intelligence and his ideals. Co-operative, democratic administration seems imperative if we accept the professional ideal for teaching.

Another consideration pointing to the necessity of teacher participation is the administrator's dependence on the teachers for the execution of his policies. The efforts to establish in recent years such departures from traditional class procedure as supervised study, individual instruction, and correlation of subjects have proved this point to many an ambitious principal and superintendent. Teachers must understand and have sympathy with the educational machinery which they operate. Thoughtful executives have decided that it is preferable to have teachers accept and understand a new policy before its inauguration rather than to impose it on the school and then attempt to educate the teaching staff to its value and to skill in employing it. The best way to pave the way for any innovation is to have the teachers assist in planning it. Gaining thereby a sense of proprietorship, they give it a fair trial in execution.

A third consideration which argues for democracy in school administration is stated by H. B. Wilson as follows: [1]

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[1] "The Participation of the Teaching Staff in Administration," *Educational Administration and Supervision,* VI (January, 1920), 63–64.

> The co-operative procedure in determining plans and programs of action inevitably results in producing larger programs than could possibly come out of the thinking of any person or of any number of persons in which all the groups who are to execute the programs are not represented. . . . Experience shows that the contribution of the teaching staff in the enlargement of programs and especially in the details essential to their execution is very great.

Here we have frank recognition of the distance between the executive and the classroom. There are, it is true, unquestioned advantages in that distance: the principal has a perspective not possible for the teacher; he is in a position to see an educational feature from different angles and in many relationships. On the other hand, the teacher gets the close-up view; he observes the effect of a policy on the individual pupil and on the group. Both views are needed for the formulation of the soundest educational program. Those responsible for administration will do well to recognize this principle by establishing such forms and such a spirit of co-operation that all the intelligence of the staff will be utilized. A great executive does not crush the initiative of those about him but calls it into action. He exercises leadership, not domination.

Concerning the form and the force of teacher participation certain principles should be stated. It must be borne in mind, first of all, that democracy in administration is essentially an attitude of mind, not a form of organization. Undoubtedly, before the recent wave of interest in this matter, expressed largely by the establishment of teachers' councils, teachers' committees, and teachers' representatives, there were plenty of schools and school systems in which there prevailed a genuinely co-operative spirit between teachers and administrators, with thoughtful suggesting and attentive listening characterizing both; without formal organization, they simply pooled their intelligence for the welfare of the school. However, if organization is necessary and helpful, it should be permitted to grow gradually rather than be imposed on a staff.

Teacher participation must not violate the "principle of unity, . . . the principle that there must be a single executive head." [1] "The principal is responsible, no matter how many of the teachers take part in administration." [2] The function of teachers is therefore to give advice, to make recommendations, and thereby to aid the principal in coming to the most intelligent decisions. Sears [1] reported in 1921 that while the movement for teacher participation was widespread and operating through a variety of temporary and permanent organizations, it was operating solely in an advisory capacity. The situation appears approximately similar today.

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[1] See J. B. Sears, "Teacher Participation in Public School Administration," *The American School Board Journal*, LXIII (October, 1921), 29–32, 113–114.

[2] Charles W. Bursch, "Principles of Teacher Participation in the Administration of the Small High School," *The American School Board Journal*, LXXVII (December, 1928), 41–42, 116–118.

Practice. Activities in teacher participation which have received widest publicity have been those involving large city systems and large bodies of teachers, rather than single schools and their staffs. Teachers have been organized for the purpose of remaking the course of study in a number of cities, and for the purpose of recommending textbooks in a few. For the revision of the rules under which teachers work, for the formulation of salary scales, and for similar purposes, teachers' councils and teachers' representatives have been called on or have volunteered to assist with detailed study and recommendations.

Within individual schools there is to be found in varying degrees formal and informal discussion of administrative problems between teachers and school executives. The staff is usually small enough so that no machinery of representation is needed. Teachers and principal can confer individually or assembled as a pure democracy. In most medium-sized and large schools, the home-room organization places some responsibility for administration on practically every teacher; but pertaining as it does to the carrying out of administrative policies with individual pupils, it is not so much an expression of democracy in administration as it is a way of getting necessary work done.

An illustration of a type of teacher participation more significant from the standpoint of the teacher is Deam's description of the committees on the staff of the Decatur, Illinois, senior high school in 1923–24: [2]

> 1. *Cabinet.*—To correlate the work of the various committees and departments and to deal with the larger problems in high-school administration, such as the budget, social life, grouping pupils for advisory responsibilities, relation of school to community, and the school calendar. (Composed of the three chairmen of the pupil-advisers—one for each class—the dean of girls, the assistant principal, the physical director of the boys, and the physical director of the girls.)
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> 2. *Professional advancement.*—To arrange a program of professional study for six monthly meetings.

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[1] *Op. cit.*

[2] Thomas M. Deam, "Teacher Co-operation in the Administration of the High School," *School Review*, XXXIII (February, 1925), 126–130.

3. *Scholarship.*—To study ability grouping and to formulate recommendations in the light of this study for adoption at the beginning of the second semester of the year, if approved by the general faculty.
4. *Registration.*—To make and execute plans for efficient registration of the pupils.
5. *Health.*—To confer with the lunchroom manager, the custodian of the building, the principal, and the physical directors regarding all health problems.

The eleven other committees named by Deam have responsibility for publications, the carnival, corridors and care of the building, the library, art and decoration, assemblies, the parents' club, school life, thrift, exhibits, and athletics. He comments as follows on the effect of such spreading out of administrative responsibilities:

> There is a certain contentment produced where the teachers take part in the molding of the policies of the school. Interest and enthusiasm are noticed where teachers are allowed to carry out their own ideas. A collective responsibility for the success of the school is developed, resulting in a united policy. The greatest argument for faculty participation, however, is the marshalling of the intellectual resources, the wisdom, and the judgment of all those whose business it is to make the school an efficient organization. A teacher has something worth while to contribute and must be given the opportunity for expression through appropriate channels.

When, as in the illustration given, teachers have the opportunity and the responsibility of studying a problem of educational administration and of creating policies, especially if the opportunity capitalizes their special powers, an augmentation of professional spirit is likely to result. They are stimulated by a sense of partnership in a large enterprise.

CLERICAL ASSISTANCE FOR ADMINISTRATION

The problem of clerical duties. In the first section of this chapter considerable attention was devoted to the distribution of the principal's time among duties connected with his office. It was made evident that these duties call for varying degrees of ability and training. The principal's first responsibility is to make careful distinctions between these duties as regards their relative importance and difficulty, then to apportion them so that his own time is largely reserved for those requiring the highest level of professional training, with the others delegated to such individuals under his direction as have qualifications comparable to the duties. Any large enterprise involves work on several levels of difficulty, and the administration of a school is no exception. Efficient management aims to discover these levels, to employ workers equipped for each level, and then to check continually as the enterprise expands or changes, to see that no employee on a given ability level is performing a duty which can be performed by an employee on a lower ability level.

The great expansion in the services rendered by the secondary school has entailed a corresponding growth in the tasks of administration, and efficiency in these tasks involves the doing of much work of a clerical nature. In some schools the principal must do this work himself or delegate it to his teachers. In others, one or more clerks are provided and the principal must plan to use them to the best advantage of the school and himself. In either case the principal is the manager and systematizer, and much will depend on his executive capacity. The presence of a clerk increases the likelihood of the principal's being freed from a burden of clerical duties, but such a result is not a certainty; it depends in part on the type of principal.

Extent to which clerks are provided. The National Survey of Secondary Education canvassed a large group of schools to determine the extent of clerical service, and reported as follows: [1]

> City schools with enrollments of fewer than 500 have a median of 1.2 clerks; for schools of 500 to 1000 the median is 1.4; for schools of 1000 to 1500 the median is 2; and the median school with more than 1500 pupils has about 3 clerks.

The more extensive survey by Reavis and Woellner [2] yielded similar findings and showed clerical service to be totally lacking in most schools enrolling fewer than 200 pupils.

In a study of 67 high schools with enrollments ranging from 365 to 1637, Bumann [3] found 39 using student help in the office. Concerning this method he reported practice and his interpretation as follows:

> Various schemes are used by these schools using students. Some pay the students a small sum per hour for this work, other schools grant partial credit to the best commercial students for help in the office, still other schools free commercial students from class appointments to do office work. . . . Many

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[1] Engelhardt and Zeigel, *op. cit.*, p. 93.

[2] W. C. Reavis and R. C. Woellner, "The Time and the Personnel Available for Administrative Duties in Secondary Schools," *School Review*, XXXVI (October, 1928), 590.

[3] S. R. Bumann, "Clerical Help in the High-School Principal's Office," *The American School Board Journal*, LXXV (July, 1927), 90, 92, 94.

> of the schools find student help satisfactory. Much of the work that is handled in the high-school office is confidential. . . . Grade records and disciplinary records particularly should never be worked on by students. Many letters are of such a nature that student stenographers should not handle them, and in filing there is the constant temptation to read other material, so that help of this nature needs close supervision if it is to be used at all.

In addition to these cautions in the use of student help, it seems advisable to mention the necessity of carefully avoiding exploitation of assistance from such a source. The student's education is the first consideration, and he should be employed as a school clerk with that purpose uppermost and only insofar as the duties assigned him constitute sound learning activities.

Selecting and training clerks. A clerk should be selected in terms of the functions he or she is to perform and with as much care as would be given to the selection of a teacher. Stanton says: [1]

> A list of duties that a clerk could perform, as given by an advisory committee [Report of the Advisory Committee on the Clerical Duties of the Principal, Seattle Public Schools], and of a list of duties compiled by the clerks themselves [Duties of Elementary School Clerks, as Compiled by Clerks in Service, Seattle Public Schools], checked against the list of secretarial duties compiled by Charters and Whitley [2] proves conclusively that the work of a school clerk constitutes a secretarial position. Further study reveals that the relative rank of the duties is not the same for school clerks as for secretaries, but from the evidence at hand it would be impossible to point out the differences with certainty.
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> The duties of the clerk include (1) taking dictation, typewriting, etc.; (2) filing, indexing, etc.; (3) editorial compilation of reports; (4) strictly clerical work, such as sending notices to teachers; (5) miscellaneous duties, such as taking care of machines; (6) handling money; (7) meeting people; (8) attending to the telephone; and (9) mailing duties.

Stanton's summary of duties, while applying primarily to elementary-school clerks, would apparently do about as well for high-school clerks, as one may judge from reading Hunter's detailed list of the "duties performed by high-school clerks in 26 representative high schools." [3] Hunter classified the duties according to the individuals for whom or in relation to whom they are performed, as, duties to principal or assistant principal, to teachers, to pupils, to parents, to parent-teacher associations, to the general public, and to the superintendent's office. With such extended relationships it is apparent that the school clerk needs a high degree of social intelligence.

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[1] Edgar A. Stanton, "Saving Time in Office Routine," *Elementary School Journal*, XXVIII (December, 1927), 270–271.

[2] W. W. Charters and Isadore B. Whitley, *Analysis of Secretarial Duties and Traits.* Baltimore: Williams and Wilkins, 1924.

[3] H. Reid Hunter, "The Duties of the High-School Clerk," *The American School Board Journal*, LXXIV (March, 1927), 65, 154.

This discussion of the clerk's duties and traits has been based on the assumption that there is but one such employee in the school. Schools which have more than one clerical assistant obviously need to plan a division of the clerical load on the basis of the types of duties to be performed, to prepare descriptions of each position, and to seek out clerks of corresponding qualifications. One, the chief clerk, might well be such a high-grade secretarial worker as has been described. The others might be persons of more limited and specialized ability.

The selection of clerks in large city systems is frequently closely regulated from the superintendent's office, and sometimes their appointment is subject to the rules of the municipal civil service regulations. Clerks are then assigned to schools in accordance either with enrollment or with the size of staff, there being a definite scale to govern the amount of clerical assistance granted. Such uniformity is doubtless desirable, though it does not take into account the variation in principals' abilities to use such assistance.

The training of the clerk or clerks on the job should be looked on by the principal as one of his most important functions, because the clerk's efficiency so largely conditions his own. Ylvisaker [1] says:

> Perhaps one of the most effective and important means of training a secretary is the preparation of standard practice instructions. These should include the "Assignment of Duty Record." This, in turn, includes: daily routine duties; calendar of duties; duties for specific days to be brought to notice by the secretary's tickler and transferred to the calendar of duties; and duties to be done as soon as possible.

Stanton suggests: [2]

> When a clerk can perform a duty in the proper manner, she should prepare a clear statement of how she does it. After such statements are approved by the principal, they should be filed and finally bound into a book. This book will be invaluable when a substitute clerk comes to the building or when a new clerk is to be trained.

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[1] H. L. Ylvisaker, "The Technique of Business-Office Management Applied to the High-School Office," *The Phi Delta Kappan*, XI (August, 1928), 56.

[2] *Op. cit.*, p. 271.

The brief suggestions given suffice merely to introduce the many problems of detail which face the principal. A well-trained and capable clerk or clerical force can set him free for larger work in the improvement of teaching efficiency. Furthermore, the utilization of such assistance to relieve teachers of as much of the school's clerical burden as possible gives the teachers more time for truly professional duties and allays the feeling of irritation which clerical duties commonly arouse in them. To make the most of his clerical force, the principal must be eternally and constructively critical of the use of his time, the time of his teachers, and the time of his clerks. His is the responsibility for the organization of clerical activity, and in this capacity he must be a student of office management. Here is a signal opportunity to improve the functioning of the school.[1]

ORGANIZATION FOR ADMINISTRATION

Obstacles to the establishment of patterns of organization. The evidence of this chapter is such as to make it clear that considerable variation prevails in the organization of high schools. The powers and responsibilities of the principal are far from universally agreed on; the duties of the assistant principal—when there is one—vary from school to school; the department headship is ill-defined and often nonexistent. That more clear-cut patterns of organization have not emerged may be attributed to a number of factors, of which the first to be mentioned is the variation in size of schools. As was pointed out in the National Survey of Secondary Education:[2]

> The most common public educational organization found in the United States is one in which the superintendent of schools shares with one high-school principal practically all the important duties connected with the management of the secondary school.

The high schools in such communities, however, vary in enrollment from a score to several thousand. The size of school over which only a principal-teacher is needed, and the size of school which requires an executive officer clothed with extensive managerial powers and responsibility, are subjectively determined. Furthermore, with the spheres of authority of superintendent and board of education as irregular as they are in practice, it is small wonder that the allocation of powers for the government of the high school is unsettled.

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[1] For a consideration of clerical aid to teachers, see Chapter X, pp. 409–410.

[2] Engelhardt and Zeigel, *op. cit.*, p. 1.

The authors of the National Survey monograph just quoted expressed the opinion that school systems having approximately 600 pupils in grades VII to XII and a similar number in lower grades might well have used the superintendent as the active high-school principal and employed a grade supervisor to direct elementary education.[1] It appears, however, that the superintendent's experience and training should be considered. Some superintendents can render more effective service in the elementary schools, in which case they would do well to assume close guidance of education at that level and use a high-school principal as the responsible director of secondary education.

Other factors which make for variation in the organization of administration are the wide differences in the support of education, in building arrangements, and in the nature of school districts.

A factor pointed out in the National Survey [2] as largely influential in divergent organizations is the nature of the personnel employed.

> Work had to be performed, and from day to day the superintendent was forced to use the most expedient method to produce results. The outcome in many cases resulted in the assignment of tasks to those in the organization who sympathized with the program, to those in whom the superintendent had confidence, and to those who would produce results. Makeshift adjustments in the administrative machinery were on many occasions constructed around various non-co-operating staff officers in the hope that time and change would provide relief.

These obstacles to the establishment of fixed patterns indicate the need for resourcefulness, flexibility, and inventiveness in high-school administration. With a clear vision of the purposes of the school, each administrator must build an organization which reflects the limitations, advantages, and needs of the local situation.[3] Such a creative task calls for professional training and character of a high order.

Should organization be based on specialization? Modern industrial organizations have attained efficiency by such division of the productive process as gives to each worker responsibility for a minute, highly specialized task. Office work has followed the example of industry. To some degree the professions—notably medicine—have been subject to the same trend toward specialization. The profession of teaching reflects the same basis of differentiation, compelled or encouraged to some degree by legal sanctions; but, as has been mentioned at other points in this book, counter tendencies, expressed in the integrated, or activities, curriculum, have signified a certain dissatisfaction with specialization.

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[1] Engelhardt and Zeigel, *op. cit.*, p. 128.

[2] *Ibid.*, p. 133.

[3] An increasing number of principals are preparing mimeographed manuals which make clear to the members of their faculties the organization of the school and the allocation of responsibilities. Such an instrument is of particular aid in the induction of new members.

Should administrators of the school be distinguished from each other by specialization of function? As a school grows larger and the administrative force must be augmented, should the organization of such workers be featured by giving to each the responsibility for special administrative tasks, as supervising the extracurriculum or overseeing the social conduct of girls? Certainly we have been moving in that direction, and there has been a tendency to lament our inability to standardize more fully the roles of specialized functionaries.

In a recent article Hughes clarifies the current trend and raises the question with which we are here concerned.[1] Pointing to the lack of distinction in the training of the various specialists, to the haziness of the differentiation of duties, and to the alleged failure of growth in the ethical standards of the teaching profession during the period of the growth in the number of specialists, he questions the results of specialization in the administration of the secondary school. Referring to the tendency under specialization to remove certain functions from the teacher and assign them to such specialists as counselor and extracurriculum director, he suggests that the teacher should be strengthened in his discharge of such functions by assistance from the office.

If organization is not to be based on specialization, on what shall it be based? Presumably, on a division of the pupils. The school that is so large as to need more direction from its central office than one administrator can give would add to its staff an assistant principal, perhaps, for each class—a person with the training and qualifications of a principal, one whose relation to the principal would be similar to that of the idealized relation of the principal to the superintendent. Quite possibly, such a division of administrative responsibility would be more conducive to a desirable unification of the forces bearing on the pupil.

Speculative as this discussion of the basis of administrative organization may be, it is clearly appropriate in this book to question common assumptions. Progress in administration depends on the possession of experimental attitudes, the disposition to engage in critical examination of old procedures in the light of evolving ideals.

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[1] J. M. Hughes, "Specialism in Secondary Education," *School Review*, XLV (April, 1937), 274–282.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Analyze chapters in this book dealing with personnel problems of pupils or staff to derive the traits of personality and character which the high-school principal needs.
2. Consider a high school of ten teachers with no clerical service and with a principal who teaches four periods per day. To improve teaching efficiency which would you do—employ another teacher and relieve the principal of all teaching responsibility or simply add a clerk to serve the entire staff as directed by the principal?
3. Define the desirable working day, week, and year of school clerks.
4. Outline a five-year curriculum for training high-school principals. If you could add a sixth year, what elements would you include in it?
5. Study the catalogues of ten leading schools of education for the purpose of analyzing and tabulating the extent to which they are consciously directing the training of high-school principals.
6. What should be the share of pupils in the administration of a school? Reconsider in this connection pages 169–172 of this book, including in your discussion both organizational and educational implications of pupil participation.
7. Prepare a daily schedule for the nonteaching principal of a high school of 500 pupils which you think will enable him to do justice to his duties. Assume the existence of a full-time secretary.
8. What are the advantages and limitations of a duty analysis as a means of defining the profession of high-school principal and forming the basis of a curriculum to train principals?
9. As principal of a high school of 1000 pupils, you sense a dire need for department heads. Prepare a paper to submit to the superintendent and board of education, concretely stating the department heads needed, a plan for selecting them, and the recognition in salary and time allowance which they should receive. Then justify as fully as possible this request for expansion of administrative and supervisory organization, for the purpose of winning acceptance of your plan.
10. Ask one or more teachers in each of ten high schools to enumerate the ways in which they participate in administration. Tabulate the results.
11. Collect half a dozen principals' manuals of administration and analyze them for their content.

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Chapter XIII

Buildings and Grounds

PROBLEMS PRESENTED BY BUILDINGS AND GROUNDS

The building and grounds present many knotty problems in high-school administration. The utilization of the building and grounds in the execution of the educational program is probably the administrator's most important problem, although by no means the most perplexing. Many of the specific problems in utilization have their inception in the original site selected for the school, in the placement of the building on the site, and in the architectural plans and building construction. Accordingly, officers of administration must be thoroughly conversant with the problems of modern buildings and grounds if they would deal efficiently with these aspects of administration.

HIGH-SCHOOL SITES

Early high-school sites. The site of the high school is a matter that has not in the past received adequate attention. The high school in a community often developed as an extension of the elementary school and was generally required to share the plant originally constructed for the elementary school. The site of the elementary school was usually near the center of the community and was generally small. Thus as the community grew, the school population increased, and the school itself expanded, the site became inadequate for the increase in building and play space needed. Most communities met the problem by building small outlying elementary schools. The school plant of these communities usually consisted of a central building housing both elementary-school and high-school pupils and one or more small outlying schools usually housing pupils of the lower elementary grades. This sort of arrangement continued in many communities until the high-school enrollment required more accommodations than the central plant could provide. The community then was compelled to select a new site and to erect a building exclusively for high-school purposes.

In some rapidly growing cities the demand for high-school facilities was early met by the erection of a separate high-school building. The site for this building was frequently in a central location, perhaps determined by a gift of land from some estimable citizen or by undeveloped property available at reasonable cost. In some states the selection and purchase of a school site required the approval of the electorate at a special election. This requirement in site selection not infrequently brought into the election the special interests of property owners and the conflicting views of different civic groups. As a result, the choice of the high-school site was often influenced by selfish considerations rather than by the characteristics that such a site should actually possess.

Enlargement of original sites since 1901. Careful study of 17 high-school buildings erected prior to 1901 reveals relatively few sites adequate in size and suitable in location for the facilities required in 1938. The original area of the 17 sites averaged 3.17 acres, the range being from $\frac{3}{4}$ acre to 19 acres and the median being 1.5 acres. Four of these original sites were still unchanged in 1938. The others had been increased by subsequent purchases of adjacent land, 5 sites having been increased by one additional purchase each; 5, by two each; 1, by four; and 2, by five additional purchases each. The average size of these 17 sites in 1938 was 10.48 acres, the range being from 0.5 acre to 34 acres and the median being 9.6 acres. The data from which the foregoing computations were made are presented in Table 82.

It is apparent that the persons responsible for the selection of high-school sites prior to 1901 were unable to foresee the nature of the future demands for building facilities and school grounds. The majority of the original sites were small, containing on the average 1 or 2 acres. These sites proved to be inadequate for the expansion of building facilities when the enrollment began to increase rapidly after 1900. The enlargement of the buildings decreased the unoccupied ground area, which was already both inadequate and unsuited for the proper accommodation of the pupils. Furthermore, the sites in the growing towns and cities did not long retain their original central location with respect to the homes of the student body, since the central areas of the communities tended to develop into business sections and the residential areas tended to shift to outlying sections.

Boards of education and school officials should not be criticized too severely for what now appears to have been poor judgment in the selection of their high-school sites. For a board to have purchased a large area for the original high-school site would have been to invite derision

TABLE 82

AREA IN ACRES OF 17 HIGH-SCHOOL SITES SELECTED DURING THE PERIOD 1850 TO 1900, AND THE PRESENT ACREAGE OF THE SAME SITES

School Number	Date of Original Purchase	Area in Acres	
		Original Purchase	Present Site
1	1850	1.0	1.5
2	1859	1.0	20.0
3	1870	1.0	3.0
4	1878	1.5	1.5
5	1881	.75	2.0
6	1884	1.4	12.8
7	1884	2.75	11.0
8	1888	1.0	7.5
9	1891	4.0	10.0
10	1893	3.0	29.0
11	1896	1.5	1.7
12	1896	2.0	2.3
13	1897	4.62	14.0
14	1898	6.3	6.3
15	1898	2.0	12.0
16	1899	19.0	34.0
17	1900	1.0	9.6
Median Site		1.5	9.6

from the school patrons who at the time little dreamed of the impending demand for secondary education. If the high-school site of the 'nineties was inadequate in 1910, it should not be charged solely to the officials who selected the site. Undeveloped school conditions generally were responsible for the poor foresight with respect to the popular favor the high school was soon to enjoy.

Sites selected since 1901. Some communities, under pressure to provide increased high-school facilities, reorganized their school programs, utilizing the inadequate high-school building as an upper-grade or junior-high-school unit and selecting a new site for a high-school building commensurate in size with the increasing demand for secondary education and appropriate in location with respect to homes of pupils. Data for 17 high-school sites selected after 1916 reveal the marked change in size as compared with the 17 selected before 1901. The average area of the original sites selected after 1916 is 24.3 acres, or nearly eight times the size of the original sites of the earlier group. Table 83, page 498, shows a range in the original areas of the later sites from 10 to 68 acres, and a median of 22 acres. Each site has been increased, on the average, by only 1.7 acres since the original purchase. In the case of the sites selected before 1901, each area has been increased, on the average, by 7.33 acres. If the two groups of schools are

TABLE 83

AREA IN ACRES OF 17 HIGH-SCHOOL SITES SELECTED DURING THE PERIOD 1917 TO 1936, AND THE ACREAGE OF THE SAME SITES IN 1938

School Number	Date of Original Purchase	Area in Acres	
		Original Purchase	Sites in 1938
1	1917	17.0	17.0
2	1918	24.0	24.0
3	1919	68.0	68.0
4	1920	23.0	23.0
5	1920	15.0	22.0
6	1920	10.0	10.0
7	1920	22.0	22.0
8	1921	25.0	25.0
9	1924	58.3	58.3
10	1924	15.0	15.0
11	1924	11.0	21.4
12	1924	11.5	23.5
13	1925	12.5	12.5
14	1927	12.0	12.0
15	1928	27.8	27.8
16	1932	23.0	23.0
17	1936	38.0	38.0
Median Site		22.0	23.0

compared with respect to the areas of their present sites, the average of the 17 selected since 1916 is found to be two and one half times the average of the 17 selected prior to 1901.

Problems of the inadequate site. It is the schools with the smaller sites that present the complicated problems in administration for principals. Evidence of this fact is found in the following comments of principals who considered the sites of their high schools inadequate: "Parking space is inadequate and there is no room for more." "Building is adequate but playground space is one and one half miles from school." "We have no space for tennis courts, ball diamonds, or football field." "Our athletic field is far removed from our building." "Our site does not provide any playground space."

The problem of inadequate site often presents insuperable difficulties to administrative officers. Only by abandoning the present building and grounds could adequate ground space be secured to provide on the school site for many of the outdoor activities now considered highly desirable in modern secondary schools. The seriousness of the problem is revealed by the facts brought out in an inquiry [1] to 82 principals regarding the possibilities of enlarging the present sites of their schools. Ten principals, or 12.2 per cent, reported that no adjacent property

[1] W. C. Reavis, unpublished material, March, 1938.

was adaptable to school-site purposes; 21 principals, or 25.5 per cent, stated that all adajacent property was fully developed and could be obtained only at a prohibitive price; 18 principals, or 22.0 per cent, claimed that adjacent property could be purchased at a high but not prohibitive price; the remaining 33 principals (40.3 per cent) stated that additional space either was not needed or could be acquired at a moderate cost if desired.

The demand for ground space for out-of-door activities is shown by the data presented in Table 84 for the 82 schools referred to in the foregoing paragraph.

TABLE 84

OUTDOOR FACILITIES PROVIDED FOR STUDENT ACTIVITIES ON PRESENT SITES IN 82 SECONDARY SCHOOLS

FACILITIES	NUMBER OF SCHOOLS
Football field	57
Running track	55
Softball diamond	52
Tennis courts	43
Baseball diamond	38
Hockey field for girls	34
Temporary bleachers	34
Permanent bleachers	31
Soccer field	29
Volleyball courts	27
Handball courts	6

Maintenance of portions of sites used for playing fields. Keeping outdoor facilities in proper condition for satisfactory use is no small task. Some of the playing fields enumerated in Table 84 require an excellent surface of sod during the playing season; others, such as tennis, handball, and volleyball courts, require all-weather surfacing; still others require special surface treatments necessary for the type of game to be played. The fields and courts in question must be protected against abuse and must receive considerable custodial care, if good playing conditions are to be maintained. The maintenance of standards for each particular facility requires alert supervision on the part of administrative officers and good custodial care.

Problems of lawns and landscapes. Additional problems are also presented by the portion of the school site reserved for lawn and landscape. For the 82 schools previously mentioned, the median space reserved for this purpose was 20 per cent of the total site. The range in the percentages of the portion of the site reserved for lawn or landscape was from 0 to 85, with the middle half of the schools falling between 10 and 30 per cent. While the original layout of the school lawn or landscape may be properly regarded as the task of a trained gardener or landscape engineer, it more frequently is the responsibility of the high-school administrator. Furthermore, supervision of the maintenance and care of this portion of the school site is a duty that can only infrequently be delegated to assistants. In the large cities which maintain a department of buildings and grounds, the responsibility of upkeep and development of school lawns and landscapes may be assumed by a specially qualified executive officer. Still, the school principal must give some supervisory attention to the protection and custodial care of school grounds. He will be held responsible, at least, for reporting needs and for advising the maintenance officer regarding desirable modification or development.

HIGH-SCHOOL BUILDINGS

Early high-school buildings. High-school buildings erected prior to 1900, like the sites of the same period, have undergone development and modification in the process of adjustment to the changing demands for high-school facilities. Some communities have enlarged the facilities by the erection of additions and annexes to the original building as the pupil load has increased beyond the building capacity. It is not unusual to find high-school plants that have been erected at three or more periods presenting marked contrasts in style of architecture. Again, one may find in some communities two or three buildings once used for high-school purposes but now used as junior high schools or as elementary-school units. The size of these buildings, when compared with the size of the modern building in which the present high school is housed, affords a basis for the study of stages of growth in secondary education in the communities in question.

High-school buildings erected at different periods of community growth reveal not only the evolution that has taken place in architecture but also the changes in the educational program. The high-school building erected in the United States between 1850 and 1875 closely resembled the privately endowed academies and the public grammar schools of the period. The characteristic feature of these schools was an assembly room, usually large enough to seat all the pupils. This room was used both for study and for recitation. Small classrooms were provided, so that a number of recitations might be carried on simultaneously with those in the assembly room. The teacher in the assembly room was responsible for maintaining order among the pupils who were detained in the room for purposes of study.

One of the earliest departures from the type of high-school construction common to the United States between 1850 and 1875 was the building provided for the Public Latin and English High Schools in Boston, dedicated in 1881.[1] John D. Philbrick, superintendent of schools in Boston at the time the building was planned in 1877, claimed that it was the first example of scientific school planning in the United States. The structure was modeled after the plan of the Akademische Gymnasium in Vienna, which was considered to embody principles of scientific planning and construction then virtually unknown to American school construction. But, strictly speaking, the plan of the building was not greatly unlike that of the typical high school of the time. The specific contribution of the building to school construction in America was the fireproof character of the structure and the large enrollment which the building was planned to accommodate.[2]

Modern secondary-school plants. The plants in which the secondary schools of today are housed vary greatly. Some are ultramodern and reflect the genius of school architects in structure and design, as well as the best thought of leading administrators in internal planning; others are obsolete structures which belong in every sense to the distant past. This marked difference in the present status of secondary-school buildings is aptly illustrated by data taken from the Co-operative Study of Secondary School Standards, presented in Table 85. The scores of the best, median, and poorest buildings in a group of 200 as rated by selected inspectors are given in the table for the three criteria specified.

TABLE 85

PERCENTAGE RATING OF BEST, MEDIAN, AND POOREST OF 200 SECONDARY-SCHOOL BUILDINGS ON CRITERIA DEVELOPED BY THE CO-OPERATIVE STUDY OF SECONDARY-SCHOOL STANDARDS[3]

CRITERIA	PERCENTAGE SCORES		
	BEST BUILDING	MEDIAN BUILDING	POOREST BUILDING
Health and Safety	99	47	23
Economy and Efficiency	98	58	32
Educational Program	99	55	8

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[1] Annual Report of the School Committee of the City of Boston, 1881, p. 158.

[2] *Ibid.*, pp. 178–184.

[3] *How to Evaluate the Secondary School.* Washington, D. C.: Co-operative Study of Secondary School Standards, 1938, pp. 16–17.

The criteria used in evaluating the buildings clearly show that a secondary-school plant must be judged by the way it functions rather than by its outward appearance. The distinction here made is important, for the school plant in itself is without value except as it contributes to the realization of the educational program. Despite this statement, it should not be concluded that the appearance of the secondary-school building should be of no concern to those responsible for its planning. The architectural effect of the building may with propriety reflect its institutional purpose, but the structure should be given individuality. Many persons insist that the institutional type of architecture, so commonly employed for schools in the past, should be abandoned and that the expensive cupolas and bells may well give place to other features of greater utility. Since the secondary-school plant is a vital part of the community it is intended to serve, the school building should be so planned and executed that it will appeal to the pride and satisfy the standards of beauty of the residents of the community as well as serve its educational purposes.

Internal space provisions. Buildings erected during the last quarter of the nineteenth century were influenced to a considerable extent by the features incorporated in the building erected for the Public Latin and English High Schools of Boston. However, it was not until plans were drawn for the Mechanic Arts High School of Boston, in 1893, that a clear-cut tendency to differentiate high-school plans from those of the academy and grammar school was discerned [1] in the specifications of high schools in the eastern part of the United States.

In the high-school buildings erected around 1900 many new features not found even in the advanced high schools of Boston were incorporated. Analysis of the floor plans of these buildings discloses eighteen different types of space provisions for the accommodation of principal, teachers, pupils, and custodians. While some of these space provisions, such as principal's office, library, apartment for the chief janitor, rest rooms for teachers, and a few specially designated classrooms, may have been considered innovative at the time the buildings were erected, most of the provisions were common to the high schools erected in the decade immediately following 1900. Examination of the plans of twelve high schools erected in cities of 10,000 population and over centering around 1907 reveals still further departures in space provisions. The change is shown in the number of space provisions designated in published plans by the range of 20 to 55, the average for the twelve schools being 34, or nearly twice as many provisions[1] as were found in the innovative Boston schools. That space provisions continued to increase in number as the secondary-school buildings responded to the demands of the times is shown by an examination of floor plans of high schools erected around 1917 and 1927. Schools erected around 1917, comparable in size with those constructed around 1907, reveal a range in number of space provisions of 26 to 61 and an average for twelve schools of 49. Twelve schools erected around 1927 contain from 41 to 81 different space provisions, or an average of 54 for the group.[2]

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[1] E. M. Wheelwright, *School Architecture*, p. 210. Boston: Rogers and Manson, 1901.

Similar developments in space provisions are revealed in the plans of high schools in smaller cities ranging in population from 2500 to 10,000. An examination of twelve such plans published in the years centering around 1907 shows a range in space provisions of 9 to 46, the average being 20. For comparable school plans published around 1917, the range is 16 to 46, and the average for twelve schools is 28. Ten years later, in the period centering around 1927, the range in the space provisions of twelve similar schools is 20 to 74 and the average is 37.

These data indicate a definite attempt on the part of persons responsible for the planning and construction of high-school buildings to provide space facilities for the developing educational program which the communities served were willing to support at the time the buildings were erected.

Further support of the foregoing conclusion is presented in Table 86, page 504, from the analysis made by Spohn. This evidence reveals the response in the space provisions of the high-school buildings to the expanding curriculum of the secondary schools. For example, relatively few space provisions were made for typewriting and bookkeeping and no provisions for stenography in the plans of high-school buildings published around 1907. In comparable plans published around 1917, over half contained special space provisions for these subjects; and in the plans published around 1927, over three fourths had such provisions. Similarly, the space provisions made for household arts, manual arts, physical education, music, and biology and for lunch facilities reveal a general increase from period to period. Data presented in Spohn's study also disclose that certain types of space provisions declined in frequency and in some instances appeared to be approaching a stage of

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[1] A. L. Spohn, "Utilization of Space in High-School Building Plans in 1907, 1917, and 1927," p. 11. Unpublished Master's thesis, Department of Education, University of Chicago, 1929.

[2] *Ibid.*

TABLE 86

PERCENTAGE FREQUENCIES OF SPACE PROVISIONS REPORTED IN PLANS OF 72 HIGH SCHOOLS CHOSEN EQUALLY FROM THE THREE PERIODS CENTERING AROUND 1907, 1917, AND 1927

SPACE PROVISION	PERCENTAGE		
	1907	1917	1927
Typewriting room	8	67	92
Bookkeeping room	8	54	92
Stenography room	0	42	54
Sewing room	33	71	83
Domestic-science room	33	46	75
Home-economics supply room	8	13	21
Food laboratory	0	0	13
Model living room	0	8	13
Dishwashing room	0	0	17
Model dining room	0	0	13
Kitchen	13	38	71
Fitting room	4	38	50
Mechanical-drawing room	29	38	54
Finishing room	13	17	38
Lumber room	17	17	25
Printing room	0	4	17
Electric shop	0	0	17
Boys' gymnasium	4	8	25
Girls' gymnasium	0	8	25
Shower room	33	42	46
Men teachers' room	4	13	50
Women teachers' room	17	17	58
Janitor's room	25	54	58
Music room	0	25	29
Lunchroom	21	21	38
Biology room	33	33	46

obsolescence; for example, wardrobes, general reception room, general supply room, science apparatus room, general storage room, teachers' room, superintendent's office, and board room.

Planning space provisions for new buildings. A study like that just considered is valuable to a principal who is faced with the responsibility of collaborating with the central administration in developing plans for a new building.[1] While the plans of a new building should always be based on the educational program of the school in question, the trends in space provisions found in buildings in comparable communities afford a basis for checking the correctness of tentative plans and for considering present and future practices as revealed by the trends. Current plans, also, such as those published from time to time in *The American School Board Journal* or those obtainable through school architects, will prove helpful both in furnishing suggestions and in providing a basis of comparison either with tentative drawings or with the ideas incorporated in the working plans. However, a principal who is confronted with the task of checking building plans needs the floor sketches of other schools—not as models to be imitated but as contemporary drawings to be contrasted and compared.

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[1] A somewhat older study the findings of which are available in print is Leonard V. Koos's "Space-Provisions in the Floor-Plans of Modern High-School Buildings," *School Review*, XXVII (October, 1919), 573–599.

The planning of a new building is too frequently done as an emergency requirement. The old high-school building has been condemned as an unsafe structure, or the accrediting association of the region has warned the local authorities that unless the housing facilities are greatly improved, the local school will be removed from the accredited list. The solution to the problem appears to be a new building. Architects are consulted and are asked to submit suggestive sketch drawings of the kind of building required to meet the criticisms made against the old plant. The board of education and the superintendent consider the question of site. A vote of the people may be asked to authorize bonds. A hasty estimate of cost is made, and plans are revised to conform with the funds available. Thus the building is planned as a response to emergencies and not as a development of a carefully considered educational plan checked and rechecked by present and estimated future needs and by current and future practices as revealed through trends. The principal of the school has had little to say about the development or the adoption of the plans; the teachers have not been permitted to offer suggestions regarding classroom needs; and the community concerned is informed only as to the urgency of the building demands. Unless the laws of the state require the submission of building plans for the approval of the state department of education before work on the structure is commenced, the new building on completion may fall far short of expectations and may even be well advanced toward obsolescence before it is available for use.

The planning of a new high-school building should never be done in a hasty manner. The head of the school should have informed everyone concerned of the impending project well in advance of the emergency situation. Carefully prepared data on local building needs, information regarding current trends in high-school programs and plants, and the educational program which the future building should house should all be in such form that the plans of the new building may be evolved as a definite response to clearly recognized local needs. The plans which the architect will be called on to submit will be based on specifications arrived at by the pooling of professional and lay knowledge.

(1) *Type of building.*—The type of building to be planned will be determined by such factors as the size and location of the site, the money available for the project, the character of the other buildings in the community, and the general plant needs of the local school. The height of the proposed building will be determined in part by the site and in part by the enrollment to be accommodated. If trends are considered, the choice will probably be a three-story building, since the present tendency favors that number. Evidence on the heights of 72 high-school plants distributed equally around the three periods 1907, 1917, and 1927 reveals (1) a strong trend toward the three-story school, (2) a marked trend away from the four-story school, (3) only a slight trend toward the two-story school, and (4) no trend toward the five-story school. (See Table 87.)

TABLE 87

PERCENTAGE FREQUENCIES OF STORY HEIGHTS OF 72 HIGH-SCHOOL BUILDINGS DISTRIBUTED EQUALLY AROUND THREE PERIODS CENTERING AROUND THE YEARS 1907, 1917, AND 1927

NUMBER OF STORIES	PERCENTAGE		
	1907	1917	1927
1	0	4.2	0
2	0	8.3	12.6
3	62.5	45.8	66.6
4	33.3	41.7	16.6
5	4.2	0	4.2

The nature of the construction to be used for the building will depend partly on the policy of the board of education and partly on the funds available for the project, since the cubage cost varies with the type of building materials used. Fireproof buildings naturally cost more than buildings with only walls, floors, ceilings, and stairways of fire-resistive materials. The cost can be further decreased if the fire-resistive materials are used only in walls, corridors, and stairs, and still further lowered if they are restricted to the walls. The cheapest type of construction and the one that would involve the greatest maintenance cost and would present the greatest danger hazards is frame. The climatic conditions of the community, the nature of local building materials available, and the fire rating of the community might also have much to do with the final decision with respect to type of building to be erected.

(2) *Instructional space.*—The present and probable future need for instructional space should be known at the time a building is planned. The number of classrooms to be provided should not be arrived at by

intuition or guess. A reliable formula[1] may be used to determine the classroom space required for the present enrollment and for the anticipated pupil load which the trends indicate will have to be provided for in five, ten, or fifteen years. The number of pupils registered in a given subject field, when multiplied by the number of class periods per subject per week and then divided by the average size of each section multiplied by the number of periods in the school week, gives the number of classrooms required for the accommodation of the pupils in that subject field; hence it becomes a simple matter to ascertain the number of classrooms that will be required to provide for the program of studies in use at the time the building is planned.

The specifications of classrooms for the subject-matter fields should be arrived at through conference on the part of principal, department head, teachers, and architect. After the sketch drawings are prepared, the type and the placement of equipment in the classroom space should be agreed upon, so that outlets may be most conveniently placed and equipment that is to be made a part of the room construction may be located to greatest advantage. Classrooms so planned will serve the functions for which they are provided and will contribute both to economy and to efficiency in learning and teaching.

Space used for instructional purposes should be planned in accordance with accepted standards. School authorities in local school systems should familiarize themselves with recommendations like those made by the National Council on Schoolhouse Construction,[2] in order that they may check the plans prepared by school architects. In general, the space to be used for classroom purposes should meet the following specifications:

1. The room should be unilaterally lighted.
2. The lighting area should be placed on the long axis of the room.
3. The upper sash should be six or less inches below the ceiling.
4. The lower sash should not be lower than the plane of vision of pupils seated nearest the window.
5. The ratio of glass area to floor area should be between one fourth and one sixth, depending on the intensity of illumination.
6. East-and-west fenestration is preferable to north-and-south.
7. The width of a unilaterally-lighted classroom should not be more than twice its height, which is normally 12 feet.

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[1] Paul C. Packer, *Housing of High-School Programs*. Teachers College, Contributions to Education, No. 159, 1924.

[2] See "Annual Proceedings, 1937." Copies may be secured from Ray L. Hamon, George Peabody College, Nashville, Tenn.

8. The length of the classroom should be determined by the desired seating capacity.

9. The walls of the classroom should be of a color with a light-reflecting factor of not less than 30 per cent and not more than 50 per cent.

10. The ceiling of the classroom should be of a color with a light-reflecting factor of not less than 70 per cent.

The sizes of the classrooms will vary with the size of the school, small schools generally needing classrooms of smaller size than large schools. However, the way the school is organized will have some influence on the size of standard classrooms and the number and sizes of rooms that should vary from the standard. Since the instructional program is constantly undergoing change and the pupil load, especially in growing communities, is steadily increasing, the space prepared for classroom use should be flexible in order that future readjustments can be made without excessive costs. To this end all partition walls possible should be of temporary rather than permanent construction.

(3) *General space.*—The modern high-school building must provide considerable space for general purposes, such as the auditorium, gymnasium, cafeteria, study hall, and library. Some of these units are expensive to operate because of low utilization. As a result, efforts have been made in planning some buildings to increase utilization by combining units, such as the auditorium and the gymnasium. The dual purpose thus realized makes for greater utilization of space and decreases the cost of operation. Some schools have attempted to effect similar economies with respect to general units through multiple use, such as the auditorium for a general study hall (unsuitable as this unit is for purposes of study) or the cafeteria for occasional large group meetings at periods other than the noon hour. Other schools have abolished study halls by going to a full five-period schedule of classes and activities for all pupils. This change has been particularly effective for overcrowded buildings, since it has made possible the use of study-hall space for classrooms. In schools in which the library is large, it has been made to function both as a library and as a study hall for pupils not scheduled full time.

Even though school principals find it difficult to justify the cost of some of the general units in terms of utilization, they regard such units as essential in the modern high school. They would, therefore, regard the school that has no auditorium, library, or cafeteria as incomplete and would seek to arrange in some makeshift way or other to carry on the functions of these units.

(4) *Auditorium-gymnasium.*—It is difficult to predict the attitude of high-school administrators in the future toward the combined auditorium-gymnasium. The plan at present has both proponents and opponents. School systems which are compelled to guard expenditures to avert unnecessary capital outlays for services that yield a low utilization strongly advocate the combined auditorium-gymnasium as providing an effective solution of an important problem. Some architects and boards of education have strongly favored this combined unit. The plan has been opposed chiefly by high-school principals, who hold that it is a poor substitute either for an auditorium or for a gymnasium and that it does not necessarily provide an effective solution to the problem of low utilization of the auditorium unit.

The following plans of the auditorium-gymnasium of the Washington High School of East Chicago, Indiana, reveal a combined unit which possesses considerable merit both as an auditorium and as a gymnasium, as well as the indispensable virtues of reduced capital outlay and increased utilization. (See figures 40, 41, 42, pages 510, 512, 514.) Hence it is reasonable to predict a greater development of this combined general unit for school systems which find it necessary to curtail capital cost and to justify space provisions by high percentages of utilization.

The building consists of three distinct divisions—auditorium, stage, and gymnasium—and has a floor area of 240 feet by 118 feet. The first division, the auditorium, provides a seating capacity of 1400 in the main floor, with balcony accommodations for an additional 500. The easy, comfortable view of the stage from every seat in the house is made even more effective by the nearly perfect acoustics of the auditorium, constructed as it is with walls of Heydite blocks. The utility of the room is seen in the equipment of some 500 of the main-floor seats with tablet arms, to be used when the auditorium is needed for study-hall purposes.

The stage, a complete unit in itself, can be cut off from the audience room by electrically-operated folding doors. The soundproof qualities of these doors, together with the insulation provided in the vertislide partition at the opposite side of the stage, make possible the use of the stage as a separate classroom or practice room. The stage alone is 124 feet by 50 feet, having on it a regulation basketball floor with movable backboards at either end. The very complete equipment of curtains, valances, and cyclorama and the many backdrops and banks of light are all elevated into the fly whenever the stage is to be used for any of

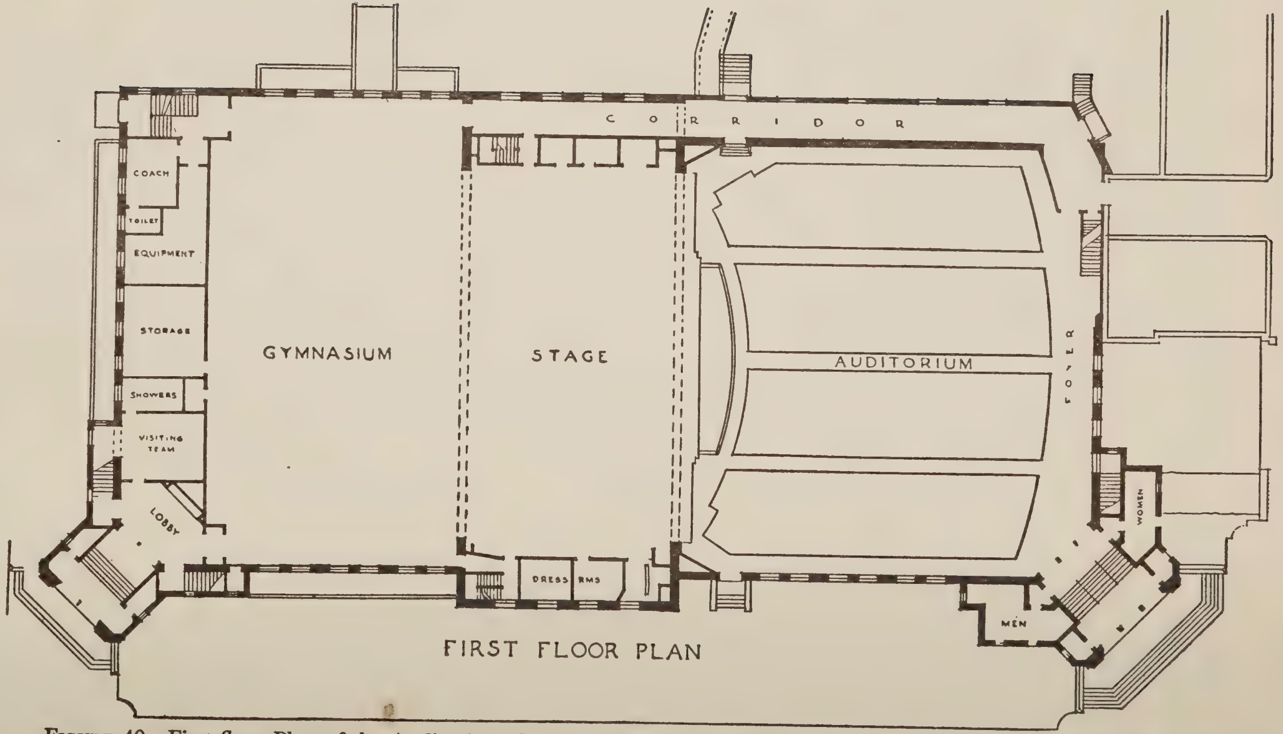

FIGURE 40. First-floor Plan of the Auditorium-Gymnasium Unit of the Washington High School, East Chicago, Indiana

the additional activities. In addition to the very commodious stage proper, this division of the unit is equipped also with accessory rooms for a variety of purposes: special storage rooms are provided for pianos, costumes, scenery, and properties; workrooms are provided for the preparation of scenery and props, and for the make-up of actors at the time of stage productions.

The third division of this unit is the gymnasium. The floor of this room, 75 feet by 50 feet, is also laid off as two cross-courts. There is a permanent balcony for the seating of 600 spectators, with space for folding bleachers seating 800 additional persons. Beneath the balcony of the gymnasium are rooms for offices, corrective classes, and the storage of equipment.

The space beneath the gymnasium is divided into three large rooms for the use of machine shop, auto shop, and wood shop. The showers and locker rooms occupy part of the space beneath the stage, while the balance of this space is reserved for a swimming pool when the necessary funds become available.

Probably the most unique feature of this commodious unit is the ease with which the three divisions can be thrown into one large arena. When the occasion is some particularly attractive basketball game, for example, the game itself can be played on the stage; the folding doors are moved back, the vertislide lifted, and the event staged between the audience room of the auditorium and the augmented seating capacity of the gymnasium proper. Thus the 1840 seats in the auditorium and the 600 permanent seats in the gymnasium balcony, with additional temporary bleachers, provide comfortable accommodations for at least 4000 people.

(5) *Library.*—The library has become so essential to good classroom activity that a modern secondary school could scarcely claim to offer acceptable work without this general unit. If a school, because of antiquated building facilities, does not have definitely planned space for the housing of a library, usually it will be found to have established a library in some improvised space, such as the assembly room, a corridor, the principal's office, or a classroom.[1] While improvised space is better than none, persons in charge of schools having to depend on such facilities for library purposes should not be deceived into thinking that they are satisfactorily meeting library requirements. The library standards that a school should strive to meet have been admirably stated by the

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[1] B. Lamar Johnson, *The Secondary-School Library*, p. 9. National Survey of Secondary Education, Monograph No. 17.

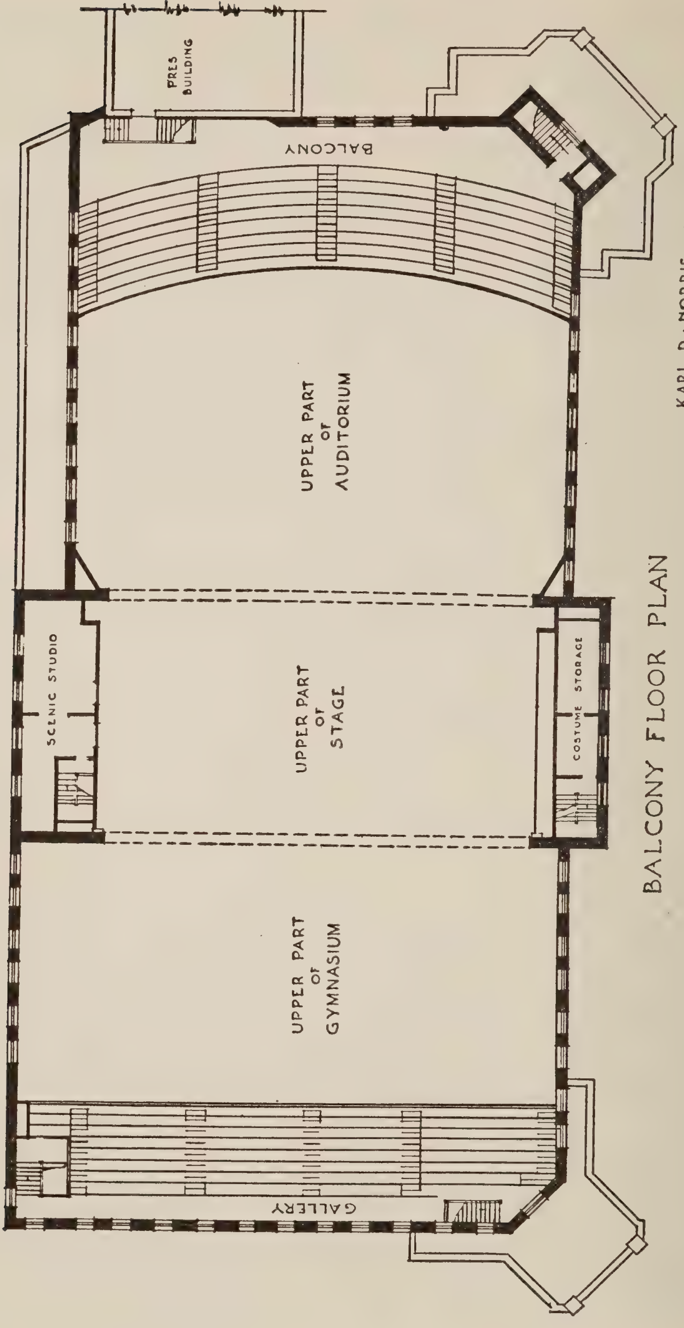

FIGURE 41. Balcony-floor Plan of the Auditorium-Gymnasium Unit of the Washington High School, East Chicago, Indiana

Co-operative Study of Secondary School Standards: "(1) a well-educated, efficient librarian; (2) books and periodicals to supply the needs for reference, research, and cultural and inspirational reading; (3) provisions for keeping all material fully catalogued and well organized; (4) a budget which provides adequately for the maintenance and improvement of the library; (5) encouragement of the pupils in the development of the habit of reading and enjoying books and periodicals of good quality and real value." [1] While the standards proposed by the Co-operative Study do not specify in objective terms what the space provisions of the library should be, the functions to be served by the library are so dependent on space provisions that it is difficult to see how a school could hope to meet acceptable standards of service without a separate room or rooms specifically reserved for library purposes.

The rooms provided for libraries in schools recognized as having innovative practices have been shown by Johnson to be (1) reading room, (2) librarian's workroom, (3) conference room, (4) library classroom, and (5) room for visual instruction. Out of 390 schools studied by Johnson, 330 had one or more of the five library facilities enumerated. The number of schools having each of the special rooms is shown in Table 88.

TABLE 88

ROOMS PROVIDED FOR LIBRARIES IN 330 SECONDARY SCHOOLS CLASSIFIED ACCORDING TO ENROLLMENT [2]

ROOMS	NUMBER OF SCHOOLS BY ENROLLMENT GROUPS					TOTAL
	100 or Fewer	101 to 300	301 to 750	750 to 2000	More than 2000	
Reading room	22	58	85	112	53	330
Workroom	2	7	25	59	36	129
Conference room	1	1	10	23	11	46
Library classroom	2	0	3	16	10	31
Room for visual instruction	0	1	2	9	6	18

Libraries are not infrequently combined with study halls, especially in small schools, as a means of economizing on space and improving the study of pupils. Johnson [3] found 112 schools out of 390 schools investigated employing such practices. In 67 schools scattered among all enrollment groups, the library was used as a study hall to which part of

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[1] *Evaluative Criteria*, p. 39. Washington: Co-operative Study of Secondary School Standards, 1938.

[2] Adapted from Johnson, *op. cit.*, p. 10.

[3] *Ibid.*, p. 36.

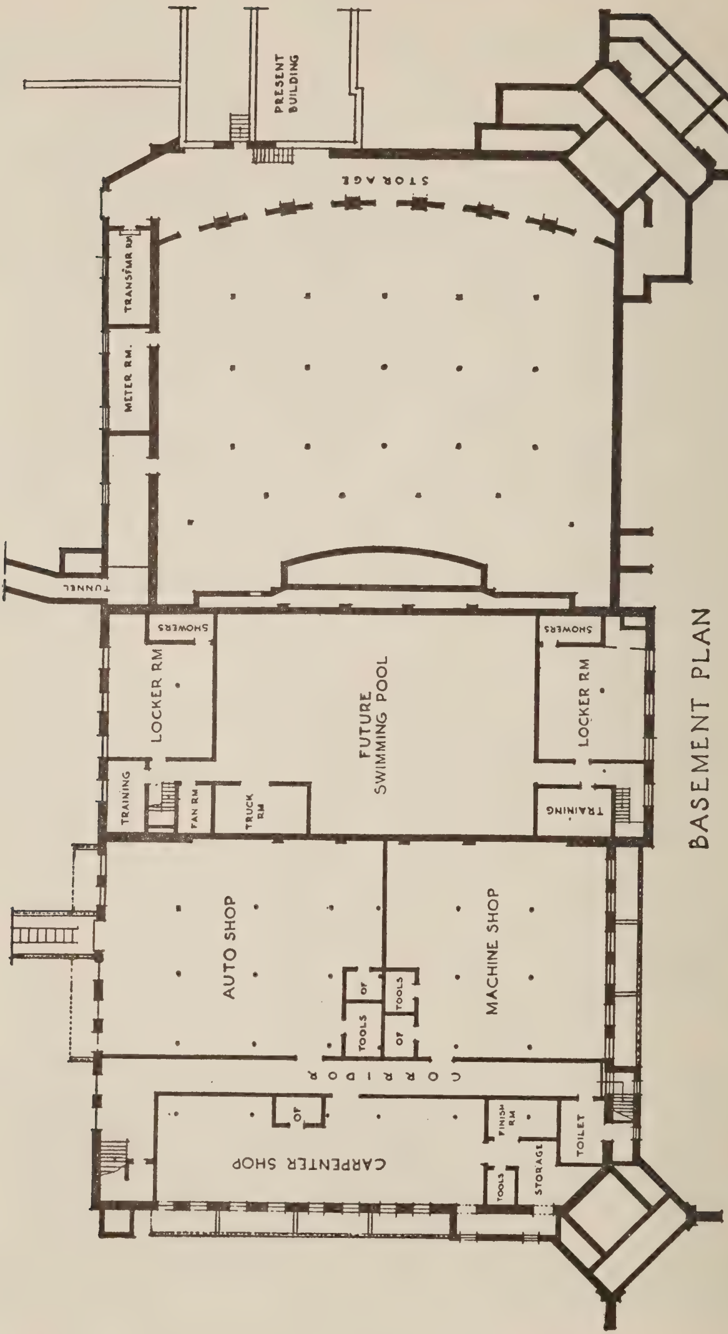

FIGURE 42. Basement-floor Plan of the Auditorium-Gymnasium Unit of the Washington High School, East Chicago, Indiana

the pupils came regularly during their vacant periods; in 45 schools, also distributed among all enrollment groups, the library was used as a study hall to which all pupils came regularly during their vacant periods. These practices were approved by the majority of principals, teachers, and librarians who were asked by Johnson [1] to express opinions regarding the use of the library for study-hall purposes.

(6) *Cafeteria.*—The use of space in secondary schools for cafeterias is a development of comparatively recent years. Twenty-four building plans of high schools in 1907, 24 in 1917, and 10 plans of junior high schools in 1920 revealed no space provisions for the cafeteria. Building plans for 24 high schools (12 for cities of 2500 to 10,000 population and 12 for cities of over 10,000 population) published around 1927 contained cafeterias in 16.7 per cent of the smaller cities and in 66.6 per cent of the larger cities.[2] Likewise, cafeterias were provided for in the 1930 plans of 12 of 20 junior high schools [3] in cities of over 10,000 population. Apparently, the designation of space for cafeterias in the plans of secondary schools is a practice that has developed since about 1925. Today relatively few new secondary schools in cities of over 10,000 population fail to set aside space for the cafeteria.

The amount of space required for the cafeteria depends on the enrollment and on the location of the school. Ford [4] found, for example, that the ratio of pupils served daily in the cafeteria to total enrollment was 1 to 3.37 in 6 large schools with an average enrollment of 2154 and 1 to 2.97 in 6 schools with an average enrollment of 609. That another relationship is even more important is shown by Stephens [5] in a study of 25 schools which he ranked according to enrollment and the average number of pupils served per day. From these rankings a relation of $r = 0.481 \pm 0.108$ was computed. When the schools were ranked according to enrollment and the percentage of enrollment served per day, a negative relation of 0.108 was obtained. Stephens's study disclosed that the ratio of serving capacity of the cafeterias in the 25 schools to average number of pupils served per day was 1 to 1.4, indicating the importance of serving capacity as a factor in cafeteria utilization.

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[1] *Ibid.*, p. 37.

[2] Spohn, *op. cit.*, pp. 93–94.

[3] E. W. Powers, "Space Provisions in the Floor Plans of Elementary-School and Junior-High-School Buildings in 1910, 1920, and 1930," p. 187. Unpublished Master's thesis, Department of Education, University of Chicago, 1931.

[4] W. S. Ford, *Some Administrative Problems of the High School Cafeteria*, p. 14. Teachers College, Contributions to Education, No. 238, 1926.

[5] Joseph B. Stephens, "The Administration of the Cafeteria in High Schools of from 375 to 3000 Pupils," p. 6. Unpublished Master's thesis, Department of Education, University of Chicago, 1932.

Since it is out of the question to provide seating capacity in the cafeteria for a major percentage of the school enrollment at a given time, various schemes have been employed in some schools to provide space for as large a percentage as possible of the pupils available to use the cafeteria at different periods. Two lunch periods of thirty minutes each are provided in some schools and are operated in alternation with two home-room periods of thirty minutes each, thus doubling the possible utilization of the cafeteria and reducing the space needs by half. Four lunch periods are provided in other schools and are likewise operated in alternation with home-room or activity periods, with the result that the potential service of the cafeteria is quadrupled and the space needs are further reduced. Other efforts have been made to justify the setting aside of a generous amount of space for cafeteria purposes by utilizing the space at other than the noon hour for other purposes, such as study hall, band practice, choruses, and meetings of school clubs.[1]

The ratio of seating capacity of the cafeteria to school enrollment in the 25 schools studied by Stephens is 1 to 3.68. However, there is great variation in the ratios of individual schools, the highest being 1 to 1.06 and the lowest, 1 to 12.9.

(7) *Office space.*—The minimum provision of office space recommended by the National Council on Schoolhouse Construction [2] for a modern secondary school consists of a general and a private office for the principal. In schools in which the organization requires additional space for administrative purposes, the recommendation calls for an office suite consisting of a general and a private office, a waiting room, storage facilities for needed supplies, and a fireproof storage vault of ample capacity.

An examination of the plans of secondary schools published in recent years shows that architects and administrative officers responsible for the planning of buildings have been influenced too frequently by minimum provisions, such as those specified in the foregoing paragraph, rather than by a consideration of administrative functions for which office space should be provided. In small schools it is usually impossible to provide office space for all administrative functions, but in large schools such space provisions must be made if efficient administration is to be obtained. Obviously, the work carried on in office space is always of greater significance than the space layout itself; yet the effectiveness of office administration is favorably or unfavorably conditioned by the general character of the office plan.

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[1] The problem of periods for lunch is treated also in Chapter VIII, p. 301.

[2] National Council on Schoolhouse Construction, *Proceedings of the Thirteenth Annual Meeting*, p. 98, 1935.

The importance of a properly conceived architectural plan for the administrative office has been recognized by the State Department of Education in Missouri,[1] and a model layout has been proposed for secondary schools housing from 200 to 700 pupils. (See Figure 43.)

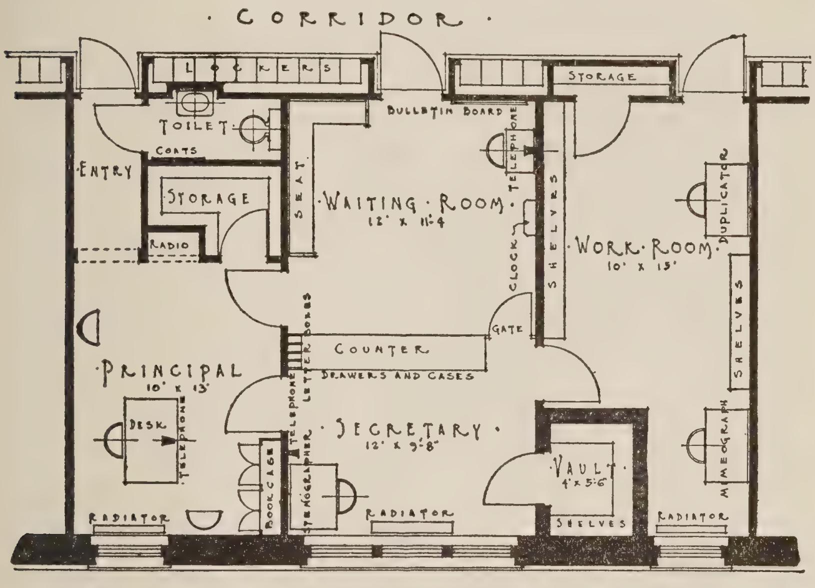

FIGURE 43. Office Layout Recommended for High Schools Enrolling 200 to 700 Pupils [2]

It is based on the administrative functions which must ordinarily be carried on in the office of a school of the size specified. These functions require the following space provisions: (1) a general room for the reception of callers; (2) office space for a clerk or staff of clerks, separated from the public room by a counter or barrier to provide a degree of privacy for the work to be carried on; (3) a private office for the principal for conference and study; (4) fireproof storage space for important records; (5) a storage room for office supplies; (6) toilet facilities and wardrobe; (7) workroom for the housing and use of duplicating devices;

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[1] *Schoolhouse Planning and Construction.* School Building Series, No. 2. Jefferson City, Missouri: State Department of Education, 1933.

[2] Reproduced through the courtesy of the School Building Division, Missouri State Department of Education.

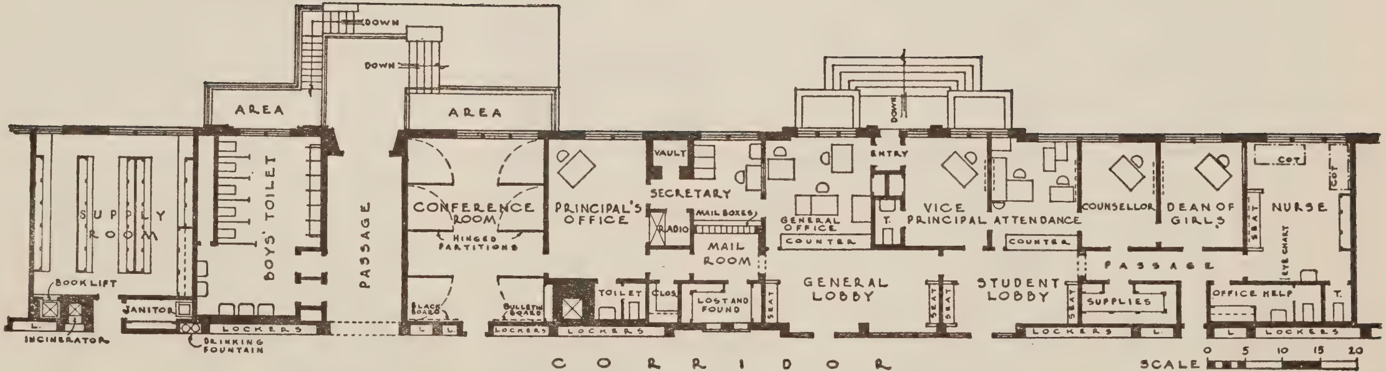

FIGURE 44. Office Suite, Washington Junior High School, Long Beach, California[1]

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[1] Reproduced through the courtesy of Kenneth E. Oberholtzer, Superintendent of Schools, and William Horace Austin, Architect, Long Beach.

(8) storeroom for pupil supplies, if free supplies are furnished to pupils; and (9) provisions for communicating with and receiving communications from persons without the school.

In a larger school, such as the Washington Junior High School, Long Beach, California, space is provided for additional functions, namely, rooms for vice-principal, attendance officer, counselor, dean of girls, school nurse, students' lobby, conference, and faculty exchange. (See Figure 44.) Here is found the centralization of administrative functions in a comprehensive office suite.

Providing space *en suite* in a central office in the larger schools for the functions and functionaries enumerated makes possible great economies both in the amount of space required and in the services rendered. One reception room, for example, can serve all the office functionaries, and a single set of records can be utilized by the entire office staff. The work of the clerks can be differentiated, one serving as information secretary and another as the custodian of records, while the others serve the staff members as a group. Such an arrangement also enables the principal to keep in close contact with the activities of his assistants and to maintain general supervision over the clerical staff.

A modern office layout of the centralized type is an important step in the direction of efficient school administration, but it does not necessarily insure administrative efficiency. The functionaries who engage in administrative work must be properly organized and their activities must be co-ordinated, if facilities are to be wisely used. This means that the functions of administration in a given school must be clearly conceived by the school head, that the responsibilities of the personnel must be defined, and that the relationships between functionaries must be understood. To the realization of the results desired, the modern administrative office and its facilities can make an important contribution to school efficiency; but the office and its organization must never be made an end. Generally speaking, a well-conceived office should signify a well-administered school. However, unless the organization set-up results in the emancipation of the principal from routine administration and petty details and the use of his time for responsibilities of major concern to his school, the administrative office will fail in its essential purposes, regardless of what the layout or equipment may be.

Improving space provisions in old buildings. Since high schools in use in any given period must necessarily represent in space provisions the standards of the time at which the buildings were planned, it is apparent that in many plants the space facilities available will be somewhat behind the demands of the educational program. This fact complicates the task of the administrator and often prevents him from putting into full operation a program of education which should be, to be modern, ten, twenty, thirty, or more years in advance of the building facilities in which the program must be executed. Inasmuch as the high-school administrator generally cannot alter greatly the space provisions of an old and often antiquated plant, his problem becomes one of making the best possible utilization of the space facilities available or of making adjustments in the space provisions.

Limited modifications in space provisions can frequently be made in the interests of present needs without unwarranted costs. For example, partitions of a temporary character can be removed or changed to provide for new purposes; large space areas, such as the old assembly hall, can in some buildings be altered so as to yield a number of much-needed classrooms; two adjacent classrooms may be thrown together for use as a library; or a classroom may be sacrificed to provide additional office space in a building in which the office space is inadequate. Changes in space provisions such as those enumerated may contribute greatly to the improvement of the educational program.

BUILDING UTILIZATION

Utilization of space in high-school buildings a recent problem. The solution of problems involving the utilization of building facilities has received little serious study on the part of school administrators until recently. One of the earliest studies of utilization of building space was made by Sears[1] in a survey of the Phoenix Union High School, Phoenix, Arizona, in 1924. He collected data on the extent to which 71 available classrooms were used during each of eight periods of the school day. The utilization by periods ranged from 30 to 86 per cent, the average for the day being 61.5 per cent. The findings revealed vacant classrooms at every period of the day and a very rough adjustment of size of class to size of room. On the basis of the data, Sears proposed that school officials in general make a serious effort to evaluate the utilization of their school space in relation to their educational programs and strive for a higher percentage of utilization than that revealed in the survey, before seeking additional school facilities.

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[1] J. B. Sears, "Some Data on the Cost of School Housing," *The American School Board Journal*, LXVIII (June, 1924), 42–44.

In the same year (1924) Packer worked out a formula for the use of high-school administrators in determining space needs for program demands. He applied the formula to program data in five schools to illustrate its use by a superintendent or a principal in determining the effectiveness of building utilization. While the formula does not contribute directly to the solution of the problem of utilization in high schools, its use should aid principals in studying the space needs of their programs as a means of finding the correct solution to the problems presented by building facilities.[1]

Problem of utilization created by inadequate facilities. The rapid increase in high-school enrollment in the decade 1920–30 created serious problems of overcrowding in the buildings available for high-school purposes in many communities. Some of these communities were not able to increase the facilities in proportion to public demand. As a result, administrators had to resort to makeshift plans, such as half-day sessions, staggered schedules, lengthened school day with shortened class periods, Saturday school for laboratory work, and the like, to accommodate the overload of pupils. How to obtain the greatest utilization of the facilities available became a pressing problem for principals and superintendents in virtually every growing school system.

The studies of Sears and Packer, already cited, furnished some aid to administrators who were confronted with the problem. Additional assistance was provided by Morphet [2] who, in an investigation of the status of utilization in 58 high schools in 1926, analyzed building facilities in relation to use, thus bringing to light the administrative practices of high-school principals with respect to utilization. This study revealed the weaknesses in scheduling and provided administrative officers with techniques of study and with tentative standards of utilization which might be applied in analyzing and evaluating building space in relation to actual and possible use. Morphet's contribution was especially timely and was of great value to officials who were confronted with the problem of overcrowding brought about by the influx of high-school pupils and by the financial inability of communities to provide increased building facilities.

The magnitude of the problem of utilization of space for high-school purposes can be fully appreciated by the fact that of the 24,714 high schools reporting to the United States Office of Education in 1934, approximately three fourths (18,021) were still housed with elementary schools.[1] Many of the structures reported to be housing both high schools and elementary schools were doubtless not planned for use by high schools. Buildings not erected specifically for high-school purposes would in most instances not supply the facilities required for the instructional demands of the pupils. Consequently, makeshift arrangements would need to be resorted to in the majority of, if not virtually all, such high schools in adapting the educational program to the available space.

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[1] Paul C. Packer, *Housing of High-School Programs.* Teachers College, Contributions to Education, No. 159, 1924.

[2] Edgar L. Morphet, *The Measurement and Interpretation of School Building Utilization.* Teachers College, Contributions to Education, No. 264, 1927.

Since many of the separate high-school buildings (6693 in Continental United States) were erected prior to the beginning of the period of phenomenal growth in enrollment, it is plausible to conclude that utilization of available space is an almost universal problem to the high schools of the United States at the present time.

Increased utilization essential to efficiency and economy. Because increase in building space—the natural solution to the problem of overcrowding in the modern high school—cannot be provided by many communities, a temporary solution must be sought through increased utilization. Increase in the percentage of utilization cannot be accomplished by fiat; it requires exact knowledge of building space and skill in adjusting building space to its availability. The administrator should know (1) the number of pupil stations (seats; space at tables, apparatus, or machines; and portions of floor space to which pupils may be assigned for stated periods) provided in the space available, (2) the extent to which these stations are utilized in the periods provided in the school schedule, (3) the extent to which pupil stations might be increased without violating the accepted standards of health and hygiene, and (4) the extent to which the available and potential stations might be utilized for an extended period, as, an eight-hour day or 2400 minutes per week.[2] With pupil load and actual and potential space facilities known, percentage of utilization can be determined and the possibilities for increased utilization ascertained.

A recent study of building utilization in 28 high schools by Scott[3] (see Table 89) reveals great variation in the degree to which present facilities are utilized. For comparison, data are selected for 15 schools, which are arranged in three groups, namely, those with low, average, and high present room-utilization. The range in percentage of utilization of the rooms available without regard for the number of pupils accommodated therein is from 61.4 to 99.4. The average percentage of utilization for the 15 schools considered is 79.8.

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[1] *Biennial Survey of Education in the United States*, "Statistics of Public High Schools, 1933–34," p. 75. United States Office of Education, Bulletin No. 2, 1935.

[2] Used by Morphet (*op. cit.*) to determine potential utilization of schools using buildings less than eight hours per day.

[3] Ralph S. Scott, "The Utilization of Building Space in Secondary Schools." Unpublished Master's thesis, Department of Education, University of Chicago, 1936.

TABLE 89

Percentage of Utilization of Room Space Found in 15 High Schools under Each of Several Conditions [1]

1*	2	3	4	5	6	7
Low Group						
1933	61.4	46.1	27.4	20.6	14.2	10.7
1926	62.1	46.6	22.6	21.7	17.0	16.3
1903	62.2	42.8	42.9	27.9	29.5	19.2
1931	66.7	50.0	52.0	52.0	39.0	39.0
1903	67.0	50.3	34.9	35.1	26.2	26.4
Average Group						
1876	74.3	43.3	31.1	25.4	19.4	15.8
1886	78.3	53.9	55.2	50.3	38.0	34.7
1922	83.4	52.1	56.9	48.5	35.6	30.3
1908	86.7	48.8	49.0	33.0	27.6	18.6
1925	87.9	61.5	67.2	60.1	47.0	42.0
High Group						
1927	89.0	58.4	74.0	81.9	48.5	53.7
1926	91.0	83.4	71.4	78.3	65.5	71.9
1904	92.4	46.2	76.0	72.7	38.0	36.4
1920	96.1	64.3	78.2	79.1	52.3	52.9
1925	99.4	62.1	90.7	88.6	56.7	52.2

* 1. Date building was erected. 2. Percentage of room utilization. 3. Percentage of room utilization if schedule were increased to 2400 minutes per week. 4. Percentage of pupil-station utilization. 5. Percentage of pupil-station utilization if schedule were increased to 2400 minutes per week. 6. Percentage of pupil-station utilization if maximum number of pupil stations which room space would permit were provided. 7. Percentage of utilization if maximum number of pupil stations were provided and schedule were increased to 2400 minutes per week.

In Table 89, in the five columns to the right of the column giving the percentage of present utilization of room facilities (Column 2), there are shown percentage figures for five different types of potential utilization, that is, the degree to which the present room space could be utilized under the conditions specified.

Analysis of the data presented in Table 89 reveals potentialities in classroom utilization not considered attainable by many principals. For example, the principal of the school having the highest percentage of room utilization (99.4) has attained virtually complete utilization of the room space available (Column 2). He therefore might say to his community that additional building space must be provided before any more pupils can be served. However, by lengthening his schedule to a 2400-minute week, or eight 60-minute class periods per day (Column 3), the percentage of utilization is shown to drop to 62.1 per cent. Under this arrangement he could accommodate an increase in pupil load of 37.9 per cent. However, before resorting to the lengthened school day, he might survey the available room space to ascertain whether all the pupil stations therein provided were in use. His survey would reveal a utilization of pupil stations of 90.7 per cent (Column 4). He thus has sufficient room to accommodate 8.7 per cent more pupils than are being cared for under the original plan. This increase in accommodations is comparatively slight and does not greatly relieve the crowded conditions which must prevail when his current room utilization is as high as 99.4 per cent. If he adopts the 2400-minute week, the pupil-station utilization will be only 56.7 per cent, making space available for an added pupil load of 42.7 per cent and nearly doubling the capacity of his building.

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[1] Adapted from Scott, *ibid.*, pp. 75–89.

If objections are offered against the lengthened week, the principal might ascertain if there have been provided all pupil stations which the room space will permit without violation of accepted standards of pupil health and hygiene. His investigation would reveal a potential pupil-station utilization of 88.6 per cent (Column 6). Pupil stations might therefore be increased to accommodate 10.8 per cent more pupils than are being served under the original room utilization of 99.4 per cent. Finally, as a means of securing the greatest possible utilization, the principal might advise both the increase in pupil-station capacity and the extension of the schedule to the 2400-minute week. The utilization of facilities would then be only 52.2 per cent, which would provide space for a percentage increase in pupil load of 47.2 when the utilization reaches its present figure of 99.4 per cent.

Stated more concretely, the school in question, at the time of inquiry, accommodated 994 pupils. Through the five methods indicated, space facilities could be increased by the first method to accommodate 1367; by the second, 1081; by the third, 1421; by the fourth, 1102; and by the fifth, 1466. Thus, by administrative engineering, the principal might increase the room capacity of this building to provide for what at first thought appears to be an impossible pupil load. Since the average percentage of room utilization has been shown by Morphet [1] to be only

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[1] *Op. cit.*, p. 34.

75.4 for 58 high schools in 1926 and by Scott [1] to be only 79.2 for 28 high schools in 1936, the importance to administrators of knowing the methods by which utilization can be increased is apparent.

BUILDING ILLUMINATION

Variation of illumination requirements. The illumination requirements of a high-school building vary greatly for the different units. Rooms used for close, painstaking work, such as sewing, drawing, and other fine detail, require the greatest number of foot-candles of light; study halls and laboratories rank second; gymnasiums and playrooms rank third; auditoriums and cafeterias rank fourth; and locker rooms, corridors, stairs, toilets, and recreation areas require the lowest amount. The range in the minimum requirements recommended by the Illuminating Engineering Society for the different types of units listed is from 8 to 2 foot-candles. The actual requirements proposed by this society greatly exceed the minimum, as is revealed in Table 90. These proposals are in turn greatly exceeded by the recommendations of the Incandescent Lamp Department of the General Electric Company. The research in the field of illumination tends to support a greater use of artificial light in schools than the minimum recommended by the Illuminating Engineering Society.[2]

TABLE 90

FOOT-CANDLE REQUIREMENTS RECOMMENDED FOR DIFFERENT SCHOOL UNITS BY ILLUMINATING ENGINEERING SOCIETY [3]

UNITS	FOOT-CANDLE REQUIREMENTS	
	MINIMUM	RECOMMENDED
Rooms used for sewing, drawing, and close detail	8	15 to 20
Classrooms, study halls, and laboratories	5	8 to 12
Gymnasiums and playrooms	3	8 to 12
Auditorium and cafeteria	2	3 to 5
Locker rooms, corridors, stairs, toilets, and recreation areas	2	2 to 4

Inasmuch as correct lighting is considered to have an important bearing on the prevention of eye defects and the efficiency of work and study, administrators of high schools will advisedly appraise the lighting facilities of their buildings and seek to improve conditions which appear to be below standard. The importance of doing this will be fully appreciated if one reflects on the fact that the human eye is adapted for long-distance vision and high illumination, whereas under school conditions it is used for prolonged periods in close work with low illumination, not infrequently accompanied by glare.

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[1] *Op. cit.*, p. 21.

[2] Matthew Luckiesh and Frank K. Moss, *The New Science of Lighting*. Cleveland, Ohio: Research Laboratory, General Electric Company, 1934.

[3] Adapted from data presented by John O. Kraehenbuehl in *Problems in Building Illumination*, p. 13. Urbana, Illinois: Circular No. 29, Engineering Experiment Station, University of Illinois, 1937.

Systems of artificial lighting. If the natural illumination of school buildings were perfect and weather conditions were always clear, artificial lighting would not present a serious problem in building administration. However, weather conditions on the average in different sections of the United States reveal great variation in outside illumination, as evidenced from the data presented in Table 91 for ten selected large cities. Since artificial lighting is provided to supplement natural illumination, it is seen from the data presented how important the lighting system is for schools, if indoor work and study are to be carried on under proper conditions.

TABLE 91

AVERAGE NUMBER OF DAYS IN YEAR 1937 THAT WERE CLEAR, PART CLOUDY, AND CLOUDY IN TEN CITIES IN DIFFERENT SECTIONS OF THE UNITED STATES [1]

CITY	NUMBER OF DAYS		
	CLEAR	PART CLOUDY	CLOUDY
New York	105	135	125
Chicago	117	124	124
Cleveland	92	122	151
Pittsburgh	86	130	149
Kansas City	153	114	98
Seattle	76	111	178
New Orleans	124	141	100
Los Angeles	179	130	56
St. Louis	139	123	103
Washington	129	121	115
Average	120	125	120

Four types of lighting systems are in use in schools: (1) direct, (2) semidirect, (3) semi-indirect, and (4) indirect. The systems are listed in order from poorest to best. The advantages of indirect lighting are the elimination of direct and reflected glare and shadows and the excellent distribution of the light. The only disadvantage is the cost, which is approximately 20 per cent higher than for direct lighting. Because of the cost factor, many schools compromise the matter and use either the semi-indirect or the semidirect. The first choice of these two cheaper systems would naturally be the semi-indirect; but as cost still remains an important factor, the semidirect system can be rendered fairly acceptable, according to Kraehenbuehl,[1] by using globes of such size as to reduce the surface brightness of the unit to at least 1.5 foot-candles per square inch. Regardless of what system of artificial lighting is in use, the amount of illumination provided should be evaluated in terms of the satisfaction of the pupils. If they complain of eye discomfort, the lighting hygiene of the unsatisfactory unit should be carefully studied, inasmuch as the color of the ceiling and walls and the placement and character of the fixtures influence the effectiveness of the system, as well as the ratio of wattage to the area of surface illuminated. In sections of the country susceptible to sudden changes in weather conditions, it may be found desirable and even necessary to install the photoelectric cell or electric eye to regulate automatically the use of the lighting system.

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[1] Adapted from data presented in *National Almanac and Yearbook*, p. 810. Chicago: National Survey and Sales Corporation, 1938.

Training teachers in the use of artificial lighting. The effectiveness of artificial lighting is partly conditioned by the personal factor of the individuals in charge of the different school units. If these individuals understand and fully appreciate the importance of proper lighting hygiene, the administrator has only to make them sentient to the need for frequent appraisal and adjustment of the lighting system to secure the character of service desired. The teacher should make the proper adjustment of shades and artificial lights at the beginning of each period of work or study and then readjust if change in conditions necessitates change during the period. To emphasize the importance of this duty on the part of the teacher, supervisory ratings should be made from time to time on the sentiency of the teacher to conditions of illumination in the unit under his control.

Natural lighting partly conditioned by shades. The efficiency of the natural lighting of classrooms and the cost of artificial illumination depend quite as much on the kind of window shades in use and their general state of repair as on the teacher in charge of the classroom. Shades fastened on rollers at the tops of windows are always unsatisfactory because when used to eliminate the glare received through the lower panes, they usually shut out the best and most necessary light, namely, that admitted through the upper panes. Roller shades, if used, should be of the type which can be fastened in the middle of the window and drawn up or down as needed, the purpose of such shades being to exclude glare but not to eliminate light. However, these functions can generally be better served through Venetian shades made of aluminum strips which can be adjusted to deflect glare without eliminating the natural light. The cost of such shades is greater, but the service is better and makes the need for supplementary artificial light less.

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[1] *Op. cit.*, p. 12.

CLASSROOM VENTILATION

Mechanical ventilation. Most high schools are equipped for mechanical ventilation. In a building so equipped, ventilation is regulated by the engineer on days when the system is in operation, and supplementary ventilation by windows is unnecessary. As a matter of fact, the operation of the mechanical system is hindered if teachers undertake to regulate ventilation by opening windows and doors. If the ventilation of a particular classroom is unsatisfactory, the teacher should report the condition to the principal, who will notify the engineer. The successful operation of a mechanical system of ventilation depends on the engineer in charge and not on adjustments by individual teachers.

The principal is responsible for securing the co-operation of the teachers in the observance of regulations pertaining to mechanical ventilation. He can best accomplish this by adequately informing them regarding the system in use.

Mechanical systems of ventilation are of two kinds: (1) central-fan and (2) unit-ventilator. In schools using the central-fan system, fresh air from the outside is conducted over central heating coils and is then conveyed through ducts to the classrooms, where it is circulated and expelled through ventilation flues at the rate of 30 cubic feet of fresh air per minute per pupil. The proper temperature of the classroom is maintained by the passing of the heated air through a mixing chamber which also receives cold air. The quantity of warm and cold air received by a classroom is regulated by a mixing damper which is under thermostatic control. If the mixing damper fails to work properly, the air admitted to the classroom may be either too warm or too cold. The teacher should report unsatisfactory temperature promptly to the office of the principal instead of trying to regulate conditions by tinkering with the thermostat, by raising windows, or by opening the classroom door. Only the engineer can rectify the unsatisfactory conditions, and he should receive the request for change from the head of the school.

In schools equipped with the unit-ventilator system, each classroom is an independent unit of ventilation. Fresh air is received through the ventilator, which is usually placed under a window. The air is then forced by a power-driven fan through the radiator coils, is circulated through the room, and is then taken out through the ventilation flues. The unit ventilator of modern type is equipped with a leakstat, a device which prevents the air from being forced into the classroom until the standard room temperature has been reached. After the required temperature has been reached, the amount of fresh air admitted through the vent is under thermostatic control. The advantage of the unit system over the central system is its superiority in the regulation of room temperature in accordance with room conditions.

Gravity ventilation. In gravity ventilation, the air moves because of variation in weight. Cold air which is heavy enters classrooms through windows and doors. The air of the rooms rises as it becomes heated and passes out through vents which have been constructed to facilitate its movement. This movement of the air, because of differences in weight, is designated *gravity ventilation.* Its success in a school depends upon the sensitiveness of the teachers to the rate of air change. Unless good judgment is used, particularly in cold weather, movement of the air in a classroom may be highly unsatisfactory. Rooms may be allowed to become overheated if only warm air is admitted; if too much cold air is admitted, drafts may be created, which contribute to the discomfort of the pupils and to respiratory illness.

Thousands of high schools depend on gravity for ventilation; in these schools the principal must accept responsibility for informing the teachers regarding the principles of such ventilation and the part each must play in its successful operation. It is unreasonable to assume that teachers without specific instruction and supervision can even approach the standards attained through mechanical ventilation.

CARE OF BUILDINGS AND GROUNDS

Persons responsible for care of buildings and grounds. The care of buildings and grounds is entrusted very largely to the custodial staff. In the smaller school systems the supervision of the custodial personnel rests with the school principal and the city superintendent. In the larger school the responsibility is often divided between principal and superintendent of custodians. The latter official occasionally has complete control over custodians, especially in the largest school systems.

In spite of supervision, the care of buildings and grounds is not infrequently unsatisfactory, due sometimes to the political status of the custodian's position and sometimes to lack of qualifications of the persons employed for custodial work.

Importance of custodian's position. The position of custodian is regarded by writers in the field of administration as of great importance in modern schools. The custodian is a responsible school official as well as a workman. No longer can the position be considered properly filled unless the custodian possesses good intelligence and some technical skill, as well as the ability to perform hard manual work. The idea that janitorial positions should go to the aged and infirm of the community who are no longer able to perform normal work has been relegated to the past, especially in the larger school systems. The demands made on custodians are difficult and exacting. The proper cleaning of a building is a task involving technical knowledge of correct methods of cleaning the many different kinds of floors in the modern high school; the proper care of expensive machinery, furniture, and playground areas; and the necessary cultivation of school lawns.

The responsibility of the custodian for the safety of the pupils is even more important than any of the other duties enumerated. The exercise of precaution in removing the causes of fires and accidents, as well as the use of good judgment in meeting emergencies, is a qualification that should receive large weight when applicants for custodial positions are considered. Authorities in the field of custodial service urge that school officials give fully as much attention to the selection of custodians as to choice of building principals.[1]

In the light of the importance of custodial service in modern high schools, a board of education which would for political or other mercenary reasons place ignorant and untrustworthy men in charge of buildings housing many children and give them custody over property costing vast sums of money is unworthy of the trust conferred on its members by the community and the state. Yet the evidence shows that boards generally have failed to set a high standard for the custodial personnel. A study of 398 custodians in 49 high schools revealed that 78.7 per cent had not received general training beyond the elementary school and that 75 per cent had received no specific training for custodial service.[2]

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[1] H. S. Ganders and C. E. Reeves, "Selection, Promotion, Tenure, and Dismissal of School Janitor-Engineers," *The American School Board Journal*, LXXX (February, 1930), 53.

[2] W. C. Reavis, unpublished study, March, 1938.

RESPONSIBILITY OF THE PRINCIPAL FOR BUILDING AND GROUNDS

Persons responsible for conditions of building and grounds. Should the principal of a high school be judged by his building and grounds? The answer to the question must be qualified, since many persons would desire to know little more about the principal than that his building and grounds are clean and orderly and are kept in an excellent state of repair. The principal can scarcely be expected to assume full responsibility for the physical condition of his building and grounds, especially if he is allowed only limited control over his custodial personnel and is not encouraged to report to his superior officers the needs of his building and grounds with respect to maintenance and development as well as custodial care. It is therefore important that the locus of responsibility of the principal for his building and grounds be more carefully determined than appears to be the case at present.

Analysis of the rules and regulations of boards of education enacted for the guidance of principals in the performance of duties with respect to building and grounds reveals three important responsibilities which principals are expected to assume: custodial care, maintenance needs, and property development. Each of these responsibilities will be briefly considered in turn.

Responsibility for custodial care. As the responsible head of a school, the principal transcends in authority all employees of his staff. Even though the custodians are placed by the board of education directly under a noneducational executive and are not subject to orders from the principal, the principal must nevertheless accept responsibility for the care of his school. If the building and grounds are not properly cleaned and cared for, the principal is privileged to report the matter in writing to the central office. He thus absolves himself from the responsibility of acquiescing in low standards of custodial service and thereby definitely fixes the responsibility for the kind of service maintained. It is therefore the duty of the principal to inspect his building with respect to its care and to report custodial derelictions to responsible officials.

The cleanliness and orderliness of a secondary school can often be greatly improved through the enlistment of teachers and pupils in cooperative effort with the custodian to maintain high standards of care with respect to building and grounds. Carelessness by pupils in the disposal of personal refuse and in the use of school facilities contributes to school disorderliness and not infrequently to property damage. Furthermore, such carelessness adds to the cost of building operation by increasing custodial work and at the same time detracts from the general appearance and the moral tone of the school. By enlisting the co-operation of teachers and pupils in the elimination of careless acts, the principal can elevate the standards of custodial service in his school. There should be elimination of needless hindrances, such as throwing waste paper on the classroom and corridor floors; leaving books, pencils, and other personal property on desks; writing on building or equipment; and eating at mealtime in places other than those reserved for the purpose. Such elimination will not only lighten the disagreeable work of the custodians but will also contribute to the development of custodial pride in building care.

It is not expected that principal, teachers, and pupils will engage in custodial work merely to lessen the janitorial load. Without the co-operative attitude described in the foregoing paragraph, however, the custodial staff will experience difficulty in maintaining high standards of cleanliness and orderliness in the care of building and grounds. Participation in custodial care, at least to the extent of eliminating the hindrances to efficient custodial service, will enhance the individual's pride in the care of public property.

Responsibility for maintenance. The responsibility for the maintenance of building and grounds properly belongs to the board of education and its executive officers. The principal, as the chief representative of these officials in the local school, serves in the capacity of agent or consultant in reporting or requisitioning needed repairs, replacements, and maintenance services. In order to discharge his responsibility efficiently, the principal must frequently inspect the condition of building and grounds with the view of reporting maintenance needs. Successful inspection requires technical knowledge of building materials and protective methods, as well as of the standards of maintenance which the board of education desires. The reports and requisitions of the principal for maintenance needs should serve as the basis of official action or of budget preparation for the ensuing year. Without such information with respect to the needs of building and grounds, the officials in the central office would experience great difficulty in providing needed maintenance in local schools.

Responsibility for development. If a school building and its grounds are responsive to the changing demands for education, constant attention must be given to development. Foresight may have been used when the site was selected and the building was planned, but in the course of time modifications are inevitable. The adjustment of the school plant to the changing demands for educational services is therefore an important responsibility of school officers. Since the principal serves in the capacity of an educational engineer in the local school, he must acquaint his superior officials with the needs for development in his building and grounds. Failure or inability to assume this responsibility may result in plant inadequacy and obsolescence before central administrative officers and the supporting community are conscious of the needs for development in local schools.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Evaluate the site of the school with which you are connected or the site of some other school by use of the thermometers developed for the purpose in the Co-operative Study of Secondary School Standards.
2. Using the three thermometers developed for the measurement of secondary-school buildings by the Co-operative Study of Secondary School Standards, determine the rating of some secondary school of your acquaintance with respect to (a) health and safety of building, (b) economy and efficiency, and (c) educational program.
3. Try to obtain the original plans and specifications for some school constructed prior to 1917. Report what changes and modifications the building and grounds have undergone in the effort to provide for needs that have emerged since first construction.
4. Draw up a plan for the development and beautification of the lawn and landscape of some school of your acquaintance.
5. Check the report of the Weather Bureau for your area to determine the number of clear, semicloudy, and cloudy days during the last school term as a basis for the consideration of the needs of local schools for artificial light.
6. Compute the utilization of facilities for some school by procedures discussed in this chapter. Compare your figures with those presented in Table 89, page 523.
7. Make a careful study of the ventilation system of some school of your acquaintance with a view to presenting the findings to the teaching staff.
8. Prepare a list of the custodial duties performed by janitors and engineers in some secondary school or schools. Classify these duties as to (a) frequency of performance (for example, duties performed daily, weekly, monthly, yearly); (b) technical knowledge involved; and (c) skill required.
9. Make a careful survey of some secondary-school building to determine all possible hazards of fire or accident, and ascertain the changes and the cost required to remove these hazards.

10. Make a complete inspection of building and grounds of some secondary school, noting the features which show evidences of least wear and misuse and those which reveal evidences of greatest deterioration and abuse. On the basis of your findings, project a program designed to prevent needless wear and misuse.
11. What is the responsibility of principals in secondary schools of the United States for the development, protection, and care of buildings and grounds?
12. Make an analysis of the rules and regulations of boards of education that pertain to the use, care, and protection of secondary-school buildings and grounds in a number of cities.
13. What are the legal requirements of the several states pertaining to the purchase of sites, authorization of funds for building purposes, and standards to be met in building construction?
14. What is the responsibility of state departments of public education in the United States with respect to the approval of sites and building plans for secondary schools?
15. What changes in the percentages of utilization have resulted from combining (a) auditorium and gymnasium and (b) library and study hall in secondary schools that have adopted such dual-purpose units?
16. Analyze the plans of a group of representative high-school buildings of comparable size to ascertain the standards that controlled the planning of the administrative offices.

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Chapter XIV

Equipment and Supplies

IMPORTANCE OF EQUIPMENT AND SUPPLIES

Everyone knows that successful work in a high school is vitally dependent on equipment and supplies. The school building without appropriate equipment and supplies is only a shell, however modern its structure may be. An instance is recalled of a magnificent high-school building in the Middle West which stood unused for a year and a half because the board of education was not financially able to equip the building after its completion. During this time, school was carried on in an obsolete building under crowded conditions; in spite of its handicap, the old building was superior for educational purposes to the unequipped new building. The new structure was virtually worthless as a school until the board could furnish the needed equipment and supplies. Desks were not available for the classrooms; the library was without tables and chairs; the laboratories in the science rooms and in the department of home economics lacked the necessary equipment and supplies; benches, machines, and tools were lacking in the shop, as well as supplies; the auditorium and the study hall had no seats for pupils; and the gymnasium lacked the equipment necessary for its use. Here, then, was a modern building greatly needed by the school community, but it could not be used because it lacked the necessary facilities usually designated as *equipment and supplies.*

In the course of time, revenues were made available in this high-school district. Equipment was then selected and purchased by the board of education, and the various types of supplies needed in carrying on school were provided. Principal, teachers, and pupils then moved into the new building and abandoned the old structure. School could now be carried on more successfully than before because the new building provided many advantages and facilities not enjoyed in the old school.

SCHOOL EQUIPMENT

Importance of equipment. The illustration just given makes clear the vital relationship of building and equipment and reveals the need in planning the building to provide for the equipment that will be used. The importance of such planning is apparent to anyone who visits a new school that has been equipped with furniture salvaged from an old school. Such equipment does not fit the space provided for it; consequently, resort must be taken to makeshift arrangements, which often make for waste in space arrangement and poor adjustment of equipment to building space.

Obviously, the equipment to be used in a new secondary school should be known at the time the building is planned. The floor plans should show the location of every piece of furniture, drawn to scale. Outlets for electricity, water, sewage, and gas should be arranged with reference to the equipment to be used. Marked savings will be effected both in floor space and in the cost of equipment if wall cases, lockers, and supply cabinets are incorporated in the building plans. Rooms requiring special equipment should be planned to accommodate the equipment desired. These plans should be carefully checked by the specialists who use the special rooms, and architectural adjustments should be made in the light of the suggestions given before final plans are prepared.

The need of careful planning for equipment. The selection of equipment for secondary schools is often hastily and superficially done, especially in new schools. The construction of the building engrosses the attention of all parties concerned. Accordingly, the equipping of the building often becomes an emergency matter. The equipment must be selected hurriedly and without due consideration for its relation to the building or to the educational program of which it is to become a vital part. All too frequently the selection is restricted by the shortage of funds originally planned for purchase of equipment but which have been drawn upon to provide for additions to and alterations in the building plans.

The selection of the necessary equipment for a new school is a technical matter that cannot be performed by a single person, such as a school architect, a purchasing agent, or a school superintendent. The advice of the school principal, the department head, and in many instances the classroom teacher must be considered in relation to the educational program of the school system before a wise choice can be made of available equipment. Co-operation of all members of the school staff is especially important in the planning of equipment that is a part of the building construction and is expected to be used during the life of the building. The individual views of the school architect and the educational policy of the school system are not sufficient in planning such equipment as blackboards, bulletin boards, lockers for teachers and pupils, cabinets for the storage of equipment and supplies, and cases for the use of classroom instructors. The views of persons who use the equipment should be ascertained and given fullest consideration before final decision is made with respect to any kind of equipment that will probably be used as long as the building lasts. Furthermore, the cost of the equipment should be carefully estimated and an adequate sum set aside to make the installation possible at the proper time.

The preparation of the list of items in the equipment for a modern secondary school requires the use of floor plans on which can be shown the location of all pieces of equipment throughout the building. The specifications for each type of equipment must then be set forth before reliable cost estimates can be obtained. A fixed percentage of the total building cost will seldom give a reliable estimate of the sum needed to provide the equipment.

It should therefore be apparent that the planning of the equipment requires virtually as much time and as much care as the planning of the building. Detailed specifications constitute the only reliable basis from which cost estimates can be secured and on which a definite appropriation for equipment can be requested.

Standardization of equipment. Large cities that must constantly deal with the problems of constructing school buildings and of providing equipment have simplified the solution of the equipment problem through the preparation of standard lists. These lists are usually the result of extensive experience in inquiry. The advantage of such lists consists chiefly in the completeness and exactness with which estimates can be prepared and the promptness with which purchases can be made. Specifications prepared for the various items of equipment remain unchanged until experience and investigation show that changes are necessary.

The use of standard lists in the equipment of secondary schools tends to prevent serious mistakes. The needs in equipping the various departments of a modern secondary school are so varied that the task of selecting equipment would be fraught with uncertainty and delay unless specific departmental needs were accurately known at the time appropriations were sought and specifications were prepared for the consideration of firms seeking contracts for equipment. The scope of the needs of a large secondary school can be largely grasped from an examination of the book of specifications prepared for a board of education by a school architect for the purchase of equipment. Such a book would probably contain from 200 to 300 printed octavo pages.

Middle-sized and small cities confronted with the problem of erecting new secondary schools or reconditioning old buildings can profit by a consideration of the standards of equipment used in the larger cities. Of course, modification in specifications should be made in accordance with the considered recommendations of the local staff of administrative officers and teachers. However, the use of the standard lists of the larger cities will usually result in better and more complete equipping of schools in communities that are not required continuously to deal with the problems of secondary-school equipment.

Reconditioning old equipment. Some kinds of equipment will last as long as the building, but types that are subjected to constant wear will require occasional reconditioning and, in some cases, replacement after a period of hard service. Laboratory tables, pupils' desks, tablet arm chairs, lunchroom and domestic-science equipment, and gymnasium equipment will probably require repair and refinishing before the expected life of the equipment has expired. The effects of constant use are soon apparent. Replacement must be made when obsolescence is reached and service is impaired. Other kinds of equipment which are subjected to rough use, such as machines, apparatus, kitchen utensils, and shop equipment, must be replaced more frequently than the kinds previously mentioned.

When new equipment is provided for old schools, changes in the interior of the building must frequently be made to bring about the proper installation. The reconditioning of the building along with its re-equipment may result in a great improvement in facilities and in the modernization of the educational program at a cost that a community can well afford to meet. Such improvements are often too long deferred in the vain hope that ultimately a new building and new equipment will be provided. Long delay in making needed improvements in equipment may result in the continued tolerance of unsanitary conditions, hazards to safety, and impaired efficiency. It is always a doubtful economy to delay the reconditioning or replacing of school equipment when careful analysis of services and needs reveals unsatisfactory conditions.

Instructional equipment. The planning of the instructional equipment for a new secondary school is largely the responsibility of the central office and the local principal and his staff, although due consideration must also be given to the views of the school architect and to equipment experts. In the large cities the standard lists which have been prepared through the pooling of past experience and the findings of research should always constitute the starting point in requisitioning equipment for a new school. New developments in instructional equipment and creative ideas of staff members will no doubt result in certain improvements from year to year in the standardized lists. Nevertheless, regardless of how efficiently a new school is equipped, provisions must be made in the annual budget for supplementary educational equipment.

The annual budget for educational equipment is intended to provide for new purchases and for the replacement of equipment that has only short life. New equipment is constantly being developed to meet new demands in instruction. In this class belong new instruments for classroom use in physics, chemistry, biology, geography, agriculture, and bookkeeping; new instructional aids, such as maps, globes, charts, models, and films; and books, monographs, pamphlets, and various types of fugitive materials.

In addition to the kinds of classroom equipment indicated, library materials must be constantly increased for the use of individual teachers and pupils. So important is a well-equipped library to efficient classroom work that accrediting associations require an annual appropriation for the improvement of library materials. The North Central Association of Colleges and Secondary Schools recommends that a minimum of $200 per school be expended each year for books and periodicals and that the amount be at least $.75 per pupil in schools desiring to maintain accredited status.

A scale for the measurement of library adequacy [1] has recently been developed as a phase of the work of the Co-operative Study of Secondary School Standards to make possible the appraisal by a principal of the adequacy and the quality of the book equipment in a local school library. Rapid changes in the methods of classroom instruction in recent years have magnified the importance of book equipment in secondary-school libraries. It is therefore essential that the school principal have at hand standards for measuring library efficiency.

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[1] Walter Crosby Eells, "Measurement of the Adequacy of a Secondary School Library," *American Library Association Bulletin*, XXXII (March, 1938), 157–163.

New inventions and new adaptations of old inventions are making possible the enlargement of school equipment as a means of instructional improvement. An illustration in point is the use now being made in many secondary schools of radio-sound equipment.[1] Central-program distributing units with loud-speakers in the individual classrooms are by no means uncommon equipment both in new and in old schools. Some schools have established a radio department with a director in charge to systematize the use of the radio in instruction. Likewise, many schools have taken similar steps to improve the use of visual aids to instruction.

The progressive principal must give much consideration during the school year to the instructional needs of his school in order that he may incorporate in his budget reliable estimates for the new equipment desired by his teachers and the replacements necessary to maintain an efficient status of equipment.

Multiple equipment for small schools. Adequate equipment for small secondary schools is often rendered virtually impossible because of the limitation of space for purposes of general use. Special facilities for offerings beyond a restricted curriculum are often lacking. Most of the laboratories essential to the proper teaching of the different sciences and the food and clothing courses in home economics and the shops for the manual arts were omitted when the buildings were planned. Laboratory facilities for only one science have been provided in most instances. A room for sewing or for cooking may have been included in the plans, but seldom rooms for both. Similarly, provisions for the industrial arts are usually limited to a single room. The limitations thus imposed on the offerings of the curriculum in the small high schools, because of the inability of communities to provide more than a minimum of building space, often create hardships for pupils desiring an enriched program of studies.

The conditions pointed out may be partly overcome in the planning of new buildings and in the adjustment of old buildings to new demands by equipping rooms for multiple use. For example, the equipment of a science laboratory may be planned so that the room may be used for general science, physics, chemistry, and biology, or for any academic subject. The room must be large enough to accommodate classes of average size in the school in question. The floor area for each pupil should be approximately 20 square feet, and the space reserved for the instructor should be about 7 feet by the full width of the room. Two storage rooms at least 6 feet by 10 feet should be provided, and there should be locker space for each pupil taking laboratory science. The desks or tables should provide approximately 30 inches of linear space per pupil station, and the tops should have an acid-resisting finish and should contain water, gas, and electric connections, as well as provisions for upright support rods and crossbars.

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[1] I. Keith Tyler, "Developments in the School Radio-Sound Field," *American School and University*, X, pp. 356–360. New York: American School Publishing Corporation, 1938.

Such a general-purpose table has been designed by the Division of Schoolhouse Planning [1] of the State Department of Education of Tennessee. The table is 15 feet long, 22 inches wide, and 30 inches high, and it can accommodate six pupils. Each table has cabinet bases which contain three compartments, a tall, narrow storage space with door, and two finished openings to hold, temporarily during the class hour, drawers which are sufficiently deep for scientific apparatus. The drawers are withdrawn and locked into a large cabinet in the rear of the room at the close of the class period.

A similar table is reported by W. G. Eckles,[2] State Director of School Building Service of the State Department of Education, Jackson, Mississippi. The dimensions of the table are the same as those of the table described above, but the drawers are placed under the table top in a row and are not removable.

Labor-saving office equipment. The treatment in this book of office standards and procedures [3] makes it fully apparent that the work of the modern secondary-school principal requires that he have adequate office space and an effective office layout to facilitate the performance of the many duties expected of the school head. The performance of the function implied by the office provisions specified in these sections of the text necessitates modern equipment also. Machines that will save the time and labor of assistants and mechanical devices that are designed to facilitate administration should be employed whenever practicable and possible. Such equipment is as essential to efficient administration as is properly planned office space. Its use saves time, relieves the personnel of worry caused by petty details, and obviates the necessity of relying on "hunches" and guesses instead of facts.

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[1] For brief discussion, see National Council on School-House Construction, Proceedings of the Tenth Annual Meeting (1932), pp. 74–75, J. B. Calhoun, "The Use of Multiple Type Furniture to Secure a Higher Degree of Classroom Utilization."

[2] *Ibid.*, p. 85. "Room and Equipment Facilities for Science in the Small High School."

[3] See Chapter XV, p. 562, and Chapter XIII, p. 495.

TABLE 92

NUMBER AND PERCENTAGE OF LABOR-SAVING DEVICES USED IN 522 ADMINISTRATIVE OFFICES [1]

DEVICE	NUMBER	PER CENT
1. Typewriter	512	98.1
2. Filing cabinet	499	95.6
3. Telephone	492	94.3
4. Stencil duplicator	478	91.6
5. Desk calendar	452	86.6
6. Program clock	448	85.8
7. Hand stamp	394	75.5
8. Adding machine	372	71.3
9. Stapling machine	321	61.5
10. Numbering machine	201	38.5
11. Memorandum tickler	186	35.6
12. Visible file	165	31.6
13. Gelatin and liquid duplicators	136	26.1
14. Mimeoscope	109	20.9
15. Neostyle	104	19.9
16. Multigraph	100	19.2
17. Efficiency desk	93	17.8
18. Comptometer	92	17.6
19. Work organizer	89	17.0
20. Cash register	69	13.2
21. Dictating machine	42	8.0
22. Bookkeeping machine	29	5.6
23. Addressing machine	20	3.8
24. Stenotype	11	2.1
25. Card-sorting machine	6	1.1
26. Mailometer	3	0.6
Total	5423	10.4*

* Average number of labor-saving devices per office.

In planning a centralized office layout, consideration should be given to the mechanical equipment to be installed, in order to avoid future expense in providing electrical outlets and storage space. While it is now generally known what the standard office equipment should be, new inventions of the labor-saving type may require changes in the office layout unless the functional uses of the space are foreseen in the original plans. Table 92 shows the frequency of use of the various items of equipment reported in a sampling study of 522 offices in widely scattered secondary schools ranging in enrollment from 4 to 6500 pupils. A few of these items of equipment are considered below in relation to office efficiency.

(1) *Filing cabinets.*—Without facilities for the systematic filing of records, forms, reports, letters, and the professional material received in

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[1] William C. Reavis and Robert C. Woellner, *Office Practices in Secondary Schools,* pp. 63–99. Chicago: Laidlaw Brothers, 1930.

the office of the principal, administrators would be greatly hindered, especially in the management of pupils. Immediate access to important information is often desired in the performance of acts of administration. If vital material has merely been stored instead of systematically filed, great delay may be occasioned because of the ensuing search that must be made when specific material is needed. The general recognition of the need for ready access to vital information has led the majority of principals of secondary schools to install filing cabinets as essential administrative equipment. The investigation [1] quoted disclosed that 95.6 per cent of the offices in 522 secondary schools were equipped with filing cabinets. If such an investigation were repeated today, it would undoubtedly be found that virtually all schools now have such filing equipment.

Many schools utilize for filing space that would otherwise be wasted, namely, the counters generally used for separating the reception room from the outer office. The counters can be planned to house the different types of cabinets required in filing the various administrative records used in modern schools. Cabinets for the purpose may be purchased from commercial firms in standard units designed to fit almost any space. When so desired, the counters can be built to harmonize with the other furniture of the office and filing space can then be provided according to analyzed needs. In general, the standard units are superior to those constructed as a fixed part of the office equipment and are to be preferred.

(2) *Visible files.*—The need for instant access to certain types of records has stimulated the development of equipment usually designated as *visible files.* Overlapping cards are inserted in metal forms so that the key name on the card is always visible when the metal form is drawn from its housing for use. The card may be easily withdrawn from its place in the form and inserted in a typewriter for the addition of information or for use on a desk when the transcription of data is made by hand. Replacement in the form is an act that involves only minor skill and no great amount of time. The advantages of the visible file for records that are frequently used are (1) the assembling of cumulative data in compact space and (2) the ready accessibility of the record on instant demand. The types of records most frequently placed in visible files are the cumulative records of pupils, the roster of teachers in large schools, and the daily programs of pupils by classes.

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[1] William C. Reavis and Robert C. Woellner, *ibid.*, pp. 82–85.

(3) *Duplicating devices.*—Every principal of a secondary school is confronted with the problem of duplication of copy. Classroom teachers can save time and secure better measurements of pupil progress if study outlines, directions for work, test exercises, and the like can be duplicated from typewritten or script copy rather than dictated to the pupils or written on blackboards. The call on the principal's office for such service has virtually reached the stage of a demand. Only the stupid or penny-wise administrator would think of discouraging such demands or refusing to provide teachers with the assistance which duplicated material obviously supplies. Pupils also will frequently require similar service in connection with extracurriculum activities. The principal himself will find occasion almost daily to duplicate announcements and instructions and to contribute definitely to the activities of the school, if he has the means at his command.

In a recent study, Bower [1] found 73 duplicating machines used in 30 secondary schools in Missouri ranging in enrollment from 108 to 2786, the average enrollment for the group being 513. The average cost of operating the service in the 30 schools in 1937–38 was only $157.47. The duplicators were used in the preparation of bulletins, notices, administrative forms, and reports. Table 93 reveals 35 types of duplicated materials produced in the different schools.

The investigation by Bower also revealed extensive use of duplicating machines in enriching instructional materials and in carrying on departmental activities in the 30 schools. A check of 12 departments revealed numerous uses of the machines—daily, weekly, monthly, quarterly, semiannually, and annually. Space prevents the listing of all the various uses. The more frequent purposes for which the duplicators were used were as follows: examinations, tests, course outlines, remedial exercises, lists of supplementary readings, maps, guide sheets, charts, bulletins, programs, job sheets, supplementary materials, songs, and the school paper. The different uses made of the duplicators by the 12 departments in the 30 schools are shown in Table 94, page 548.

As has already been indicated, in addition to the uses made of duplicating equipment in carrying on office administration and in facilitating instruction, the machines are also used extensively by sponsors and pupils in the conduct of extracurriculum activities. For the last-named purpose Bower found 348 different uses reported. From the data

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[1] H. V. Bower, "The Uses of Stencil Type Duplicators in Thirty Secondary Schools in Missouri." Unpublished Master's report, Department of Education, University of Chicago, 1938.

TABLE 93

TYPES OF MATERIALS PRODUCED WITH DUPLICATING MACHINES IN 30 SECONDARY SCHOOLS

Types of Materials	Schools	
	Number	Per Cent
Bulletins to teachers	25	83.3
Miscellaneous office forms	25	83.3
Registration data	23	76.6
Notices to parents	22	73.3
Bulletins to parents	21	70.0
Class schedules for teachers	21	70.0
Notices to teachers	20	66.6
Class schedules for pupils	18	60.0
Vocational guidance blank forms	18	60.0
Enrollment lists	17	56.6
Financial reports	17	56.6
Absence reports	16	53.3
Attendance reports	16	53.3
Inventory forms	16	53.3
Vocational guidance informational material	16	53.3
Changes in schedules	15	50.0
Faculty directories	14	46.6
Annual reports	13	43.3
Excuse blanks	12	40.0
Notices to student organizations	11	36.6
Reports on meetings	11	36.6
Requisition forms	11	36.6
Accumulative office forms	10	33.3
Courses of study	10	33.3
Curricula	10	33.3
Health and safety bulletins	8	26.6
Reports on tests	7	23.3
Student handbooks	7	23.3
Library forms	5	16.6
Student directories	5	16.6
Forms for scoring tests	4	13.3
Honor rolls	4	13.3
Permanent record cards	3	10.0
Intelligence tests	1	3.3
School savings or thrift forms	0	0.0
Total	452	15.1*

* Average number of types.

presented it is apparent that a duplicator of the stencil type is a labor-saving piece of school equipment of great importance in modern secondary schools. How schools were managed before the invention and perfection of this type of equipment is difficult to comprehend. The evidence of use makes necessary a generous annual appropriation in the school budget for paper, ink, and clerical labor necessary to provide the service and the maintenance of the duplicating equipment.

TABLE 94

NUMBER OF DIFFERENT USES MADE OF DUPLICATING MACHINES BY 12 DEPARTMENTS IN 30 SECONDARY SCHOOLS

DEPARTMENTS	NUMBER OF USES
Physical education	101
Dramatics	87
English	74
Commercial	71
Social science	62
Manual arts	60
Music	47
Home economics	47
Mathematics	44
Science	41
Foreign language	24
Art	9
Total	667

SCHOOL SUPPLIES

Meaning of the term "school supplies." The distinction between school equipment and school supplies is often slight. Equipment is usually regarded as having a greater degree of permanence than supplies. Equipment should not be destroyed in the process of using, whereas supplies are purchased with the idea that they will be consumed as used. School desks, shop equipment, laboratory apparatus, typewriters, mimeographs, globes, wall maps, and the like are customarily classified as equipment; fuel, paper, chalk, ink, outline maps, and chemicals are always considered as supplies. Both equipment and supplies are essential, and both should be provided for in the school budget, although the accounting may be made on a separate basis.

Educational supplies often regarded as the responsibility of parents. In the Colonial and pioneer periods, few educational supplies were furnished at public expense. Parents were expected to provide their children with most of the necessary supplies, such as textbooks, paper, ink, pens, pencils, and the like. Such supplies were handled by local merchants in the school community, no attempt being made to secure uniformity in quality. In more recent years, as secondary schools have expanded their curriculums and have established standards of work, uniformity of supplies has become highly important, if not imperative. As a result, many school systems have tended to provide at public expense some of the educational supplies used by the pupils, if not all. In states in which such expenditures are not authorized by law, efforts have been made to secure uniformity by the adoption of standard lists of supplies, and to enlist the co-operation of merchants in offering for sale only approved kinds of supplies.

School stores. Since many educational supplies are personal in character, secondary schools have frequently found it desirable to provide facilities within the school for the purchase of such supplies through the establishment of a school store. Some schools have undertaken to sell textbooks to their pupils, as well as small articles, such as pencils, paper, notebooks, and other supplies used frequently. Some schools have gone much farther and have offered for sale music supplies, art materials, gymnasium shoes, and the like. Other schools have attempted to supply the personal requests of pupils for confections, nuts, fruit, soft drinks, and the like. In still other schools considerable selling by student organizations takes place. Tickets for class plays, athletic events, and contests of various kinds are sold; some organizations hold regular candy sales; and others undertake to supply pupil needs at games and contests, offering for sale sandwiches, popcorn, candy, ice cream, and various kinds of refreshments. School officials in some schools have sold concessions to individuals and corporations supplying dispensing machines of various kinds. Administrative officers in other schools have permitted pupils to act as agents in selling class jewelry, invitations to graduating exercises, and insignia of various kinds.

The diverse types of selling carried on in modern secondary schools show that furnishing supplies for the personal demands of pupils has become an important administrative problem. An investigation by Funkhouser [1] of the selling practices in 29 secondary schools in Illinois ranging in enrollment from 97 to 7510 pupils reveals the extent to which principals have permitted selling operations to be carried on. The reasons usually given by principals for permitting the type of selling carried on in established school stores are as follows: (1) convenience to pupils, (2) economy, (3) standardization of supplies, and (4) the elimination of satellite stores. All the principals interrogated agreed that convenience to the pupil is the primary reason for establishing and maintaining a school store. Because of the distance of local stores from the school and the difficulty of access to stores by pupils coming from rural areas, the principals in some of the schools studied considered the school store a necessity in the efficient operation of the modern secondary school. Virtually all the principals (96.6 per cent) also agreed that economy was a basic reason for the establishment of the store. In the group of 29 schools studied by Funkhouser, a saving of approximately 20 per cent was effected by the pupils purchasing in the school store rather than in the local town or city stores. Standardization of supplies was also considered a fundamental reason for the establishment of a school store by 55.2 per cent of the principals. These officers considered standardization impossible when the pupils had to rely on local merchants for the purchase of school supplies, since the merchants frequently tended to offer substitutes for standardized materials as a means of increasing profits.

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[1] O. W. Funkhouser, "School Stores and Selling Practices in Secondary Schools." Unpublished Master's thesis, Department of Education, University of Chicago, 1935.

Funkhouser's investigation reveals a list of 154 articles reported as being sold in 29 schools. These articles were classified into three groups, namely, (1) articles which are used in practically all kinds of work, as pencils, theme paper, textbooks, and ink; (2) articles which are used in one course or in a few related courses of study, as mechanical-drawing paper, stenographic notebooks, and art supplies; (3) articles in personal demand, such as candy bars, nuts, fruit, and soft drinks.

The average number of different articles sold in the 29 school stores was 39. The average number of noneducational articles sold in each school store was relatively small—only 3.4—although the sales of these articles amounted to approximately 8 per cent of the total sales of the stores. Virtually all the stores operated on a cost basis, approximately half (44.8 per cent) reporting a small profit for the year.

Three plans were used by schools in financing their stores: (1) capital outlay was secured from the small profit which accumulated from the operation of the store; (2) the board of education appropriated money for the original capital outlay; (3) the school acted as the buying agent of the pupils and by staggering the payments for goods to the wholesaler or jobber was able to pay the bills out of the income of the store.

About half the stores studied were managed by the principal or by the office clerk. Apparently the principal acts in the capacity of manager only in the smaller schools. In the very large schools the business manager of the school system has responsibility for the management of the school store. A tendency was noted also in some of the schools for the principal to delegate the duties of management to some person on the school staff.

In schools in which selling is engaged in by pupil organizations and clubs, the income from sales is used largely for the financing of extracurriculum activities. Administrative control over the selling is evidenced by the following practices: (1) selling is done under faculty supervision; (2) receipts from sales are turned into the school office for banking and accounting; (3) a check of sales of pupil organizations is made by an administrative official; (4) rules have generally been adopted for the control of selling, the rules pertaining chiefly to the hours in which selling may take place; (5) organizations cannot engage in selling without permission; and (6) pupils engaged in selling are held responsible for any shortage of funds.

The importance of the service rendered to pupils by the school store can be evaluated in terms of the gross sales in schools maintaining stores. In 27 schools from which Funkhouser [1] secured information with respect to sales, the total annual purchases ranged from $.34 to $22.32 per pupil, the average being $4.94.

Rental system of textbooks. Since textbooks are the most expensive item in the materials of instruction that must be provided for the pupil, much consideration has been given to the ways and means of reducing textbook costs. The plan of providing free textbooks solves the problem for the parent, if the law of the state and the budget of the board of education will permit the expenditure. In states that are not permitted to furnish free textbooks and in communities not able to provide the cost of free textbooks, parents must meet the expense. Many schools have found it difficult to carry on instruction because of inability and refusal of parents to purchase the prescribed books. Some schools have reported that from a fifth to a third of their pupils are unable to secure books. While the law generally requires that boards of education purchase books for indigent pupils, the cost of the service is so great that boards have been compelled to try other means of solving the problem of supplying all pupils with books.

One of the expedients found to work successfully in reducing the cost to parents who can afford to buy books and to the board in supplying indigent pupils is the adoption of the rental system of textbooks. The board of education purchases the books and is reimbursed for the outlay over a period of three or four years with the rental fees. To illustrate, the cost of the necessary textbooks for a pupil in Grade IX might be $7.36. The pupil is given the use of these books for a year at a cost of $2.50, thus saving approximately 66 per cent of the purchase price. The same books will be rented a second year to another pupil at the same rate, and a third year to a third pupil. At the end of the third year the books have been paid for through rental fees and are then discarded. New books are purchased and the process is repeated.

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[1] *Ibid.*, pp. 41–42.

The plan enables parents to supply their children with books at a reasonable cost and makes unnecessary a capital investment in books generally considered worthless to the pupil after he has used them a year. The board of education, through the plan, can reduce the annual cost to indigents about 66 per cent. The plan also has the advantage of averting criticism for the frequent change of textbooks, since no one any longer has any capital invested in used books. The principal can thus organize his teachers into committees to study textbook material with a view to selecting the best books available every three years.

In the administration of the rental system, the parent agrees to be responsible for the destruction of or for any unnecessary damage to the rented books by his child. This responsibility makes the parent and the child parties to a contract to exercise reasonable care in the use of the rented property. The board of education is thus protected from the loss of its investment. The administration of the rental system is the task of the school principal, as is also the responsibility for the proper storage of the books during the summer vacation and at other periods when they are not in use by pupils.

Free textbooks. Many states have enacted legislation requiring school districts to provide free textbooks. Other states have passed laws permitting districts to furnish textbooks if they wish to do so. In brief, compulsory or permissive legislation with respect to free textbooks has been enacted by approximately two thirds of the states. In the permissive states, cities have led the rural areas in furnishing textbooks and other instructional supplies to pupils without charge. A recent report on the practices of 150 unselected cities ranging in population from 15,000 to 30,000 showed that 84, or 56 per cent, furnished textbooks and other educational supplies without cost to the pupils.[1]

The practice of furnishing free textbooks and other educational supplies creates many problems of organization and administration. Unless a wise choice of such materials is made and efficient administration is provided, much dissatisfaction and waste of public money may result.

In a recent study of the procedures used in selecting textbooks, Miss Whipple [2] concluded that the practices in both state and city adoptions were unsatisfactory. The personnel making the selections varied greatly. Some school systems placed the responsibility for selection on the principal and the teachers of each school. In a few of these cities officials from the central staff undertook to provide guidance for the principal and the teachers. Other school systems placed the responsibility for the selection of books in the hands of the personnel of the central office. In still other systems the responsibility was shared by the central office and the teaching staff. A few school systems ascertained the preferences of the school officials who would be concerned with the books after selection. Only occasionally did school systems provide for the study of books in advance of selection.

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[1] D. Pandolfi, "Storage and Distribution of Supplies of School Systems in Cities of from 15,000 to 30,000 in Population," p. 10. Unpublished Master's thesis, Department of Education, University of Chicago, 1937.

[2] Gertrude Whipple, *Procedures Used in Selecting School Books*, pp. 118–119. Chicago: University of Chicago Press, 1936.

Miss Whipple also found that the procedures followed in making book selections varied greatly. Some states and some cities had well-defined plans; others were practically without plans. In a few systems the work was begun with a study of the type of book needed; in others, with the formulation of standards for evaluating books; and in still others, with the actual examination of books presented for consideration. Some procedures included many essential steps in selection and others only a few. Some procedures employed various sources of information, such as public libraries, professional literature, school records, and the views of experts; other procedures utilized only the judgments of the officials making the selections. A few plans provided directions for the examination as well as a check on the results; many furnished no definite directions. In some instances, school officials expressed satisfaction with their procedures; in others, dissatisfaction.[1]

Free educational supplies. The selection of educational supplies is fully as important as the selection of textbooks. Authorities in administration generally agree that such supplies should not be selected arbitrarily by central-office employees without regard to the views of the teachers who use the supplies. Committees composed of principals and teachers should examine and rate the quality of the supplies offered for purchase. The choices of the committee should be numbered first, second, and third, and the final purchase by the central office should be based on both price and committee preference.

Granting that a satisfactory selection of educational supplies has been made, the principal of the school still must solve the problem of distribution, which is dependent on storage and the system adopted with respect to orders and deliveries. If supplies are stored in some central place for the system instead of in the local school, the principal must set a fixed time for requests in order to adjust his requisitions to the schedule of deliveries from the central storeroom. Since 73 per cent of the cities studied by Pandolfi [1] used the central-storage system, it is apparent that the majority of principals in school systems with free supplies must synchronize their local plans with the delivery schedule of the system. Dates for orders and dates on which deliveries will be made to teachers must be established and all persons concerned must co-operate fully to secure satisfactory services. For the housing of books and a limited amount of educational supplies, storerooms in local schools must be provided. A system of record-keeping that will permit of periodic auditing must also be established.

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[1] *Ibid.*, p. 119.

In school systems in which virtually all educational supplies are furnished by the board of education, the supplies are considered the property of the board until used. The responsibility of the teachers for the care of supplies is great. The teacher must account for the quota of supplies distributed to his classroom and must see that the supplies are issued to the pupils and are economically and appropriately used. The administration of supplies in such school systems makes a heavy demand on the teacher, although the advantages to the teacher in having available at all times an adequate stock of educational supplies outweigh the administrative demand.

The responsibility of the teacher for the care of supplies would not be adequately discharged unless an earnest effort were made to develop the proper regard on the part of pupils for the supplies furnished by the board of education. For the teacher to permit pupils to develop wasteful habits in the use of free supplies and to become indifferent to the service involved is a type of neglect of duty that should not long be tolerated.

Standardized lists of supplies. Schools that furnish instructional supplies to pupils are confronted with many problems of administration. The principal should have the supplies ready for the use of teacher and pupils at the time the supplies are needed; the supplies should be of uniform quality from purchase to purchase; and the cost should be kept at the lowest figure possible without sacrifice of necessary quality. Since the number of different kinds of educational supplies constantly increases as new needs develop in instruction, the administration is almost compelled to resort to standardization as a means of eliminating variation in quality and of keeping within budget appropriations made for supplies.

[1] *Op. cit.*, p. 20.

O'Dell made a study of school supplies over a period of four years in two cities in Oklahoma.[1] He showed that standardization of supplies in junior and senior high schools results in greater economy, more uniformity, and a better understanding by teachers of supplies in relation to the curriculum than is possible where no standardization is attempted. In the purchase of pupil supplies, such as pens, pencils, paper, ink, notebook covers, rubber erasers, rulers, and the like, great savings were effected through standardization. For example, it was found that for general supplies pupils in the junior high school [2] spent on the average $2.34 before and $.21 after standardization, and in the senior high school [3] $3.48 before and $1.88 after standardization. The effect of standardization was to eliminate many of the items pupils were accustomed to buy. Taking into consideration all the supplies purchased by the pupils in the school systems studied, O'Dell's study showed a saving of 50.5 per cent in supplies purchased by pupils after standardized lists were prepared and officially adopted. It is therefore apparent that standardization is desirable whether educational supplies are purchased by the pupils or furnished by the board of education.

CARE AND USE OF EQUIPMENT AND SUPPLIES

Responsibility of principal and teachers for equipment and supplies. The life of school equipment depends largely on its care. The responsibility for care on the part of the administrative head does not consist of rendering custodial service directly but of securing the co-operation of teachers, pupils, and janitors in the proper use and in the necessary protective care of school equipment. Similarly, the principal must accept responsibility for the efficient and economical use of school supplies. Supplies that are stored in the principal's school must not be allowed to deteriorate or to be wasted because of inadequate care. In some schools, the equipment shows little evidence of wear or improper usage after five, ten, or even fifteen years; in other schools, it is marred and defaced after a comparatively short time. School desks, apparatus, maps, globes, supplementary books, and the like may last an indefinite number of years if properly used and protected; on the other hand, such equipment quickly shows the effect of improper use or neglect. Supplies, such as paper, pencils, ink, chalk, and similar materials, if used carefully and reasonably, can be furnished at moderate cost, but if misused and wasted, will run up to excessive cost.

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[1] Clyde H. O'Dell, *School Supplies.* Greeley, Colorado: Colorado State College of Education, 1935.

[2] *Ibid.*, p. 54.

[3] *Ibid.*, p. 92.

The rules and regulations of boards of education usually require that principal and teachers assume responsibility for the legitimate use of equipment and supplies and for protecting such facilities from destruction and misuse. Laxity of supervision and tolerance of improper usage of equipment and supplies by principal or teachers should be regarded as evidence of inefficiency and administrative irresponsibility.

The exercise of the protective function by principal and teachers with respect to school equipment and supplies is not sufficient; the entire student body must be brought into co-operation in the observance of the function. It is expected that a due measure of appreciation for the service rendered by the community to the youth through equipment and supplies will be revealed by co-operative participation in the proper use of these services. The result desired will not be secured through constant admonitions by principal and teachers, but through the development of understanding of the cost of the services, the civic obligation of considerate use, and the personal responsibility of each school member for protection and care. If personal pride is developed in the proper use of school equipment and supplies on the part of pupils, there will be relatively few disciplinary measures for misuse required of principal and teachers.

The ideal set forth in the preceding paragraph is aptly illustrated by the self-imposed standard of the student body of Wichita High School, Wichita, Kansas, in the school's handbook.

> Did you ever see anything more attractive than our school grounds? The city has given us a beautiful place in which to work, and abundant space in which to have a good time. May we not keep it so? There has grown up a tradition in Wichita High School that every student is a self-appointed custodian of the beauty of our school home. If students are thoughtless enough to damage the building or shrubbery or to walk across the lawn, they are likely to be reminded by some other student who has been here longer that that simply "isn't done" at Wichita High School. If someone not connected with the school takes liberties with the beauty of our school property, he also is reminded that he is expected to be a better citizen. Many people have remarked at the fine care shown the school building and grounds. The students who have been here are proud of it and wish to keep it so. The new ones soon catch the spirit, if they have not already caught it.[1]

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[1] *Handbook of the Wichita High School*, p. 12. Wichita, Kansas: 1928–1929.

Responsibility of custodial staff. Interest on the part of teachers and pupils in the care of equipment and in the proper use of supplies will be reflected in improved care by the custodial staff. It is not expected that teachers and pupils will engage in janitorial activity to stimulate the staff or to lighten the work of the custodians. Participation to the extent of protective care and proper use of equipment and supplies will greatly encourage custodians through the elimination of many hindrances to the maintenance of high standards of custodial service. The most common hindrances to high-grade custodial service are carelessness and thoughtlessness on the part of pupils in throwing partly used supplies on classroom and corridor floors; in defacing desks and other equipment with knives or pencils; in writing initials on walls of corridors, stairways, and toilets; and in priming fountain pens by dashing ink on floors or walls.

Principals and teachers who are blind to any of the foregoing hindrances to good school housekeeping and who do nothing to develop in their pupils habits of orderliness and responsibility in the care of equipment and in the use of supplies fail in an important responsibility. Without co-operation in the proper use of school facilities by teachers and pupils, good janitorial service is scarcely possible, however efficient the custodial staff may be.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Make an appraisal of the equipment of some school building, for example, the one in which you are at work, and indicate wherein the efficiency of this school could be improved through the addition of new equipment and through the substitution of modern for obsolete equipment.
2. Was the importance of good equipment adequately realized when this school building was planned? Specify respects in which improvements might have been made.
3. Criticize the principle advocated in the text that the selection of equipment for a modern secondary school is a task comparable in difficulty and importance with the planning of the building.
4. Show how the successful planning both of a secondary-school building and of its equipment requires the co-operative efforts of administrators, teachers, and technical staff.
5. Make a survey of the condition of the equipment in some school or schools and prepare (1) a list of equipment that is obsolete and should be replaced, (2) a list of equipment that should be reconditioned within the next school

year, and (3) a list of equipment that will require reconditioning within the next five years.

6. As a basis for proposed budget appropriations, prepare classified lists of instructional equipment which is needed to place the work of some school of your acquaintance on the efficiency level merited by the supporting community.
7. In the light of the discussion in the text on office equipment, prepare recommendations on both the space and the equipment needed to place the office of some school with which you are familiar on par with the standards specified.
8. Consider the uses made of duplicating devices in some school of your acquaintance in the light of the uses found in the 30 secondary schools studied by Bower.
9. Compare this school with respect to the practices of other secondary schools in providing educational supplies for pupils. What changes would you like to make in these practices in the light of the discussion presented in the text?
10. Outline a plan for improvement in the methods of selecting textbooks, supplementary books, and educational equipment and supplies in some school of your acquaintance.
11. Are standardized lists of educational equipment and supplies in use in this school? If not, develop a plan for the preparation of such lists which might be put into use in the school in the near future.
12. Prepare a plan designed to secure the fullest co-operation of teachers, pupils, and custodians in the proper use and care of school equipment and supplies.
13. Make an investigation of school stores in the high schools of some state other than Illinois, and compare your findings with Funkhouser's.
14. Prepare a check-list questionnaire for use in collecting information from high schools that rent textbooks to pupils. Send the list to a selected group of schools, and revise the questions in the light of your experiences in tabulating the returns. Send the revised check list to a representative sampling of schools, tabulate the returns, interpret the data, and draw the conclusions warranted by your findings.
15. Repeat the investigation made by Bower on the uses made of the stencil-type duplicators in a selected list of high schools in some state other than Missouri, and compare your findings with Bower's.
16. Secure a list of high schools in school systems that furnish free textbooks and supplies and investigate the per-pupil cost of the various items furnished in these schools with a view to preparing an essential list of materials that can be provided at the minimum cost.
17. Ascertain the similarity and dissimilarity in practices of principals in high schools of different enrollment groups in selecting, ordering, distributing, and accounting for the educational supplies furnished free to pupils.

18. What is the legal status in the several states of the furnishing of textbooks, supplementary books, and educational supplies to high-school pupils without charge?
19. Consider the potentialities for supervision afforded by co-operation of teachers in selecting and requisitioning equipment and supplies (including materials for the library).

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Chapter XV

Office Standards, Procedures, and Forms

OFFICE ACTIVITIES

Need for classifying and assigning activities. The term *office* is used loosely by both school executives and authors of literature on school administration. The principal of a school usually applies the term in the narrow sense to denote the place where he performs or directs the performance of those activities for which he is responsible. In this sense, the dean of boys, the dean of girls, the physical director, and other officers of the school will each refer to his "office."

Operating under modern conditions, school administration is a problem of such complexity that it can often be studied more effectively when it is analyzed into its elements. A number of attempts have been made to provide such an analysis. The results vary according to the knowledge, experience, and point of view of the person making the analysis. In spite of such variations, the activity analysis is essential to an understanding of office practice because it reveals the activities that are to be performed and thus makes possible the allocation of responsibility and authority for their effective performance. In reality, organization results only after such a classification of administrative activities has been made and after responsibility for the performance of each class has been allocated.

It is desirable, therefore, before discussing office standards and procedures, to attempt a preliminary classification of activities which may be said to belong to the office. This may result in a list of homogeneously classified activities so grouped as to make clear the allocation of authority and responsibility for their performance, and to make possible the derivation of the standards and procedures basic to effective performance.

Types of activities. The activities of the principal and the teachers of a school are of two closely related but nevertheless distinct types. Though there are no standardized terms for these, the two types will be referred to in this discussion as *primary activities* and *ancillary activities.*

The term *primary activities* is taken to include all activities of the school which are both fundamental to and an integral part of the planning and executing of the major work of the school.

Ancillary activities, on the other hand, refers to all activities which are contributory to the performance of the primary activities. A principal may, for instance, in the performance of a primary activity (such as planning to reorganize a certain course of study), use carefully collected and skillfully classified data as a basis for procedure. Assembling and arranging the data are activities which are preliminary to, but are not an integral part of, the actual process of planning. These are ancillary activities.

The work of the administrator, as discussed in other chapters of this book, has consisted largely of primary activities. Office procedures, on the other hand, are made up entirely of ancillary activities and may include a considerable number of them. It is through an analysis and a classification of these activities that the functions of office work within the school may be agreed upon.

A classification of homogeneous office activities. Analyzing the ancillary activities of principals and teachers of the school, and grouping together those which may be thought of as traditionally belonging to office practice, the three functions of the school office thus arrived at may be expressed as follows:

A. Performing duties preliminary to assembling and classifying data which are to furnish criteria for the performance of the primary activities of the school. Under this heading may be grouped activities such as:
   1. Giving intelligence tests preliminary to performing the activities of classification and guidance.
   2. Administering classification tests and standard achievement tests preliminary to the promotion of pupils from one unit of the school system to another.
   3. Gathering data on registration preliminary to arranging schedules and making programs.
   4. Scheduling classrooms preliminary to the starting of school.
   5. Obtaining personnel data, such as teachers' estimates of pupils, the age of pupils, occupation of parents of pupils who are entering school, and so on, preliminary to giving curriculum advice.
   6. Taking an inventory of laboratory apparatus and school equipment preliminary to ordering new apparatus and equipment.
   7. Classifying the marks of the school preliminary to inaugurating a program of defining marks.

B. Establishing standards and keeping records and reports. This includes the performance of activities such as:
   1. Systematically classifying for future reference data regarding the individuals of the school.
   2. Summarizing data regarding groups of pupils which are selected for special study.
   3. Making out forms for the purpose of forwarding, at definitely stated times, tabulated information to parents, pupils, or school officials, including the principal's report to the superintendent.
   4. Preparing data in such forms as will best serve administrative planning and execution. Under this heading may be included such activities as:
      a. Making classification charts.
      b. Constructing individual and class profiles.
      c. Tabulating marks.
      d. Preparing financial and budgetary tables for specific purposes.
      e. Classifying data on pupil costs, subject costs, teaching load, etc.
      f. Preparing data to show pupil progress, promotions and failures, etc.
      g. Mimeographing and typing reports, etc.
   5. Registering information of census nature, such as keeping records of census, attendance, etc.
   6. Classifying and recording information of a value that justifies temporary or permanent filing. This includes such activities as:
      a. Supplying information to teachers, or to superintendent's office.
      b. Recording supplies, inventories, etc.

C. Filing, corresponding, and interviewing. Such activities may be included in:
   1. Answering and filing correspondence.
   2. Interviewing prospective teachers.
   3. Interviewing teachers, parents, and pupils on matters pertaining to the work of the school.
   4. Interviewing school visitors, agents, and inspectors.
   5. Answering the telephone, issuing instructions, etc.
   6. Filing materials to be reserved.

Undoubtedly, a complete analysis of the work of the school would bring forth many more ancillary duties than those listed. The three main functions of office practice would, however, under any analysis, probably include the activities as classified.

Criteria for classifying activities as office activities. The true worth of a school office is to be found in the service rendered to the school through the office activities. In order to be classed as an office activity, each activity must contribute in some positive, even though ancillary, way to making the management of the school by principal and teachers more effective. To do so, the activity must meet two final and decisive qualifications: First, it must be adapted to serve a special purpose; second, there must be a visible or tangible product which results directly from the activity itself.

A high-school office which serves principally as a storehouse of records and information renders little aid in making the work of the school more effective. However, if raw data are recorded and then worked up into utilizable form, there is an identifiable output which may serve as a basis for the planning and execution of the work of the school. A characteristic weakness of office management within schools has been a type of planning which often leads to the recording of many data that are without purpose or, having a purpose, are never classified or organized to serve that purpose. The administrative head of the school must see to it that such weaknesses in office management are avoided.

The office of a school, then, may be considered a most important agency, whose functions should be clearly determined and whose products should be carefully planned, scheduled, and utilized. It is becoming imperative that principals do some original thinking on both these questions. A painstaking principal may develop a fetish for making thorough and exhaustive reports covering every type of thing without being conscious that many of his reports are only of minor value and that they scarcely merit the time and costs expended on them. Much that goes on in secondary schools in the name of research, but which would classify well under office practice, suffers in this same regard. The final product often is not of a character to convince one who examines it that it was planned primarily to render some needed service to the teachers or other officers of the school.[1]

One of the first steps, then, in classifying office activities is to determine the purpose which any activity so classified will serve. This should be done for activities such as the recording of items on office forms, reporting facts of whatever kind and to whatever agency, and collecting items of information; and it should be done for all other activities which may be homogeneously grouped together and catalogued as office activities. It is obvious, too, that first identifying the use or uses which any activity or datum can serve makes it much easier to devise methods whereby that purpose may be served.

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[1] For evidence on this point see William H. Zeigel, Jr., *Research in Secondary Schools*, pp. 44–45. National Survey of Secondary Education, Monograph No. 15. United States Office of Education, Bulletin No. 17, 1932.

STANDARDIZING RECORDING PRACTICES AND PROCEDURES

Importance of recording practice. The homogeneous grouping of activities attempted at the beginning of this chapter resulted in a classification under the heading of "Performing duties preliminary to assembling and classifying data which are to furnish criteria for the performance of the primary activities of the school." Such duties cannot be too carefully planned for, but the data to be assembled and classified will condition the preliminary duties.

The limits of office performance are set by the recording practices and procedures of the school. Taken here to include the keeping of standard records and the making of standard reports and to exclude those which are not standard, recording practices and procedures form the most important group of office activities. Without an effective system of recording practices and procedures, other groups of office activities will either languish or disappear entirely.

Present status of recording activities. It is strange that, for so fundamentally important a group of school activities as record keeping, so few standardized procedures have been evolved. Forms for recording data are almost as diverse in kind as in number. In the main they have been designed by persons wishing to inaugurate an individual system or by those who have kept adding forms to patch up an otherwise inadequate system, the result of which is an accumulation instead of a basically organized system. Even the simplest of the accounting terminology has not been standardized. The meaning of the term *average daily attendance*, so commonly used, remains unstandardized. In a study of terminology used for the keeping of records, Heck [1] comments on what constitutes the dividend and what the divisor when average daily attendance is derived. He reveals the use of an astonishing number of variations. Variation in definition is just as common to other terms in use. *Aggregate attendance*, *enrollment*, *membership*, and the like have definitions as variable and meanings as confused as is the case with *average daily attendance*.

When one contemplates the confusion in accounting terminology and the variations in record forms and procedures, it is obvious that a workable program which will remedy the present situation is not easily derived. The present status of recording practices reveals the true need of a remedy.

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[1] Arch O. Heck, *A Study of Child-Accounting Records*, Chap. VIII. Bureau of Educational Research Monographs, No. 2. Ohio State University Studies, Vol. II, No. 9. Columbus, Ohio: Ohio State University, 1925.

Means for standardizing recording practice. Three steps seem necessary to the standardization of recording procedures. First, the uses which records are to serve must be established. Second, the items essential to carrying out established purposes must be determined or, if previously determined must be adopted. Third, uniform state or, if possible, national records for the keeping of fundamental and necessary data should sooner or later be adopted.

It is likely that fundamental data can be restricted to a few items, and there is danger that this may not be done. If the data are not so restricted, there is a further possibility that standard state and national requirements will interfere with local planning, which ideally would grow out of a local need arising from the carrying on of a local educational program. Administrators have doubtless noted the resentment among teachers who have been asked to furnish information for some organization when they were kept in complete ignorance of the uses to be made of the information requested.

Some phase of the question of uniform records has been under discussion or reported at most of the National Education Association meetings that have been held since 1877. The National Council of Education from 1880 to 1898 had a standing committee appointed purposely to study and report on recording practices. Uniformity of records was stressed as an urgent need by both these organizations in all their reports. With the growing complexity of educational administration, a permanent, systematic, uniform recording system has come to be considered an indispensable necessity. The big problem is no longer to reveal the need but rather to find the way.

Standardizing agencies can find and lead the way. The Department of Secondary-School Principals, a section of the National Education Association, contributed something to this through the report of a Commission on Standard Forms. The first two steps outlined above as necessary to the standardization of recording procedures were carried out by this Commission in its attempt to establish uniformity of record forms.

Determination of uses which records are to serve. In order first to determine the uses to which permanent high-school record forms are to be put, the Commission, after deriving the functions of such record forms from an analysis of the literature of the subject, formulated statements of five uses. These five uses were then rated in importance by selected groups of principals and university specialists in secondary education.[1]

In rating the importance of the functions, a value of 100 was assigned to the function regarded by these judges as of most importance. To each of the uses regarded as of less importance, a value at some point from 0 to 100 was assigned, the point being determined in the judgment of the rater according to the relative value he considered the function to possess in comparison with the uses rated by him as having an importance of 100. The five functions with the combined ratings are shown in Table 95. It can be seen from this table that, while the exact point values assigned by the principals and the specialists are not quite the same, the relative ranks given to each of the functions agree rather closely for the two groups. To assist in guidance, to improve teaching methods, to assist in research, and to provide bases for reports, respectively ranking in the order named, all received values of above 50. These, then, may be considered as constituting the four most important functions of the permanent-record forms of secondary schools.

TABLE 95

AVERAGE VALUES AND RANKS OF FIVE USES OF PERMANENT-RECORD FORMS AS REPORTED BY 60 JUDGES[2]

Use	Principals (47)		Specialists (13)		Total (60)	
	Average Value	Rank	Average Value	Rank	Average Value	Rank
To assist in guidance (including classification and placement)	98	1	100	1	98	1
To improve classroom teaching methods by giving the teacher access to information regarding the individual differences of his pupils	73	2	59	3	70	2
To assist in research	68	3	64	2	67	3
To meet requirements of, and provide basis for, reports to state, county, and local authorities	63	4	44	4	59	4
To motivate pupils' work	48	5	33	5	45	5

Determining the items to serve the four purposes. For purposes of determining the exact items, the Commission, assisted by Johnson, made a detailed analysis of about 250 permanent-record blanks, gathered from representative high schools in different parts of the country. In this analysis, they found 237 different items. These items were classified under various headings. They were sent for rating to the same qualified judges to whom the list of five functions of record forms were submitted for evaluation.

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[1] B. Lamar Johnson, "The Permanent Record Form in the Secondary School," *School Review*, XLI (February, 1933), 114–122.

[2] *Ibid.*, p. 118.

The judges were asked to rate the value of each item in accordance with their opinions of its contribution to the performance of each of the uses which were submitted at the same time. The items were to be rated on a 6-point scale, ranging from 0 to 5, 0 indicating no value; 1, little or very little value; 3, moderate value; 5, very great value; and 2 and 4, values intermediate between 1 and 3 and 3 and 5, respectively.

Weighting the values of recorded items. Each item was rated by the same individuals who rated the uses of permanent-record cards. For the first 50 items, their rank in value, and the weightings assigned them, see Table 96, page 570. The last 10 items in the full list of 237 items are of interest principally because they illustrate the character of items infrequently recorded. They were, in order of least valuable to greater value (although none had a high weighted value): vaccinated by, date of marriage, other documentary proof, date of death, space for subsequent history, passport, date sent (under work entered), baptismal certificate, signature of teacher recording grades, number of pupil's cards in filing system.[1]

In the absence of further research, the list of 50 items as given in Table 96 may be considered essential for the present for every high-school record card designed to meet the needs of the purposes named. In using the items, it should be kept in mind that the criterion for selecting those listed has been expert judgment and that the method used was to weight each item according to its value in serving the uses to which it was to be put. The items, of course, were first determined from an analysis of record forms in use in representative high schools. Thus the judgment of those doing the rating was made in the light of information gained from previous studies made by the Commission. With this information and with their own understanding of the practical problems of child-accounting, the judges made their evaluations. This study made available for the first time findings regarding two fundamental necessities in the evaluation of a permanent high-school record system. It has determined the four major uses which, in the

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[1] The entire list of items is reproduced, together with the derived weightings, in R. R. Cook's "Report of Commission on Standard Blanks," *Proceedings of the Twelfth Annual Meeting of the National Association of Secondary-School Principals*, pp. 166–177. Bulletin of the National Association of Secondary-School Principals, No. 20. Chicago: Department of Secondary-School Principals of the National Education Association, 1928.

TABLE 96[1]

RANKS OF 50 ITEMS INCLUDED ON PERMANENT-RECORD FORMS ACCORDING TO AVERAGE VALUES ASSIGNED BY 47 PRINCIPALS, 13 SPECIALISTS, AND THE TOTAL OF 60 JUDGES

Item	Principals (47)	Specialists (13)	Total (60)
1. Pupil's name	1	1	1
2. Pupil's date of birth	2	6	2
3. Intelligence quotient	5	3	3
4. Scores in standard tests	8	4	4
5. Pupil's age at entrance	4	24	5
6. Scores in intelligence tests	7	5	6
7. School entered from	3	44	7
8. Absence summaries	6	17	8
9. Mental age	11	9	9
10. Sex	12	8	10
11. Marks in each subject by semesters	18	2	11
12. Ratings on personal traits	14	7	12
13. Pupil's nationality	15	13	13
14. Tardiness summaries	10	32	14
15. Color or race	16	25	15
16. Date of school entrance	9	47	16
17. Class scores in standard tests	19	14	17
18. Honors received	20	22	18
19. Credits upon entrance	13	39	19
20. Positions of responsibility held	29	12	20
21. Space for extracurriculum activities	31	11	21
22. Reason for leaving school	27.5	18.5	22
23. Amount of credit—total	22	35.5	23.5
24. Names of standard tests	23	30	23.5
25. Chronological age	27.5	45	25
26. Membership in organization	17	49	26
27. Pupil's address	21	37	27
28. Names of intelligence tests	26	29	28.5
29. Number of days present—summaries	25	33	28.5
30. Date left school	30	28	30
31. Subject age	24	38	31
32. Meaning of marks	34	27	32
33. Pupil's place of birth	32	43	33
34. Date re-entered	33	18.5	34
35. Vocational preference	41.5	10	35
36. Upper third, lower third, or middle third of each class in which pupil took work	39	20	36
37. Intention to graduate from high school	43.5	16	37
38. Suspended	36	42	38
39. Parents' names	35	46	39
40. Classification upon entrance	38	40	40
41. Rank in graduating class	41.5	31	41
42. Parents' address	37	48	42
43. Are parents living?	43.5	35.5	43
44. Reasons for irregular attendance	45	26	44
45. Intention to enter college	48	23	45
46. Reinstated (after suspension)	46	41	46
47. Reason for not intending to graduate	49	21	47.5
48. Standing at last school	50	15	47.5
49. Number of weeks each subject taken	40	50	49
50. Athletic record	47	34	50

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[1] B. Lamar Johnson, *op. cit.*, p. 119.

judgment of experts, permanent-record forms may serve. Secondly, it has given a list of items which will serve these purposes, and has at the same time given some indication of the relative importance of each item in serving these four needs.

Administrative uses of the weighted items. As here insisted, an essential requirement of a good permanent-record system is that the forms contain the items which will adequately serve the purposes which those record forms were designed to serve. The entire list of weighted items given furnishes a standard by which the items kept on high-school record cards may be checked. By setting down in similar form the list of items on the school records, the principal may note how many of the items contained in the standard list are missing from the form in use in his office. In many cases it may seem desirable not to replace completely the present system within a school; but when new cards are added, the more valued of the missing items—say those of the upper half of the standard list—might be added to the present system without causing a change either in the size of the card or in the nature of the system. In this way, the principal may feel that he is personally keeping the raw data which are believed to be useful for guidance purposes, for improving instruction, for use in research, and for providing data necessary for school reports.

Need of uniformity of forms as well as of items. However, the lack of numerous essential items will, in many high-schools, justify a new system. Here the officials will face a peculiar problem. On the one hand, a need exists for a state-wide uniform system of accounting and for a uniformity in the terminology used on the forms. It is often argued that education is a state and not a local function and that the state, for its own educational purposes, must come to demand uniform accounting. Obviously, the demands of the state should be carefully limited. A local school should be required by the state to record only those items which are needed to serve the purposes of the state. Items which are reported to the state are of much more value to the state if a uniform terminology is adopted.

On the other hand, the local educational plans must be well served. Regimentation by the state is sometimes as undesirable in respect to local needs as it is desirable for state standardization. The staff must, perforce, devise the record forms suitable to meeting the demands of the educational plans which are peculiar to the individual school. Forms to serve local needs are less likely to be permanent. They should be subject to change, if the need arises, from semester to semester. They will vary from school to school and with the individual educational undertaking. Since schools do not view with favor the adoption of record forms the keeping of which is so time-consuming as to be a burden, a reasonable balance must be maintained between what is required of the school to meet the outside demands and what is needed by the school to meet the demands of its own educational program. State authorities must exercise care that their demands do not interfere with local planning.

Uniform permanent-record systems. Some states now have uniform permanent-record systems which they recommend to the schools in the state. These have sometimes been derived by committees of state teachers' associations, and have been adopted by the members of the associations. Principals of high schools in states where uniform permanent-record forms are not adopted will do well either to adopt systems used in another state or, what might be better, to utilize the recommendations of some nation-wide standardizing agency. For example, the recommendations of the Commission on Standard Forms previously referred to furnish an authoritative source to be followed.

In every school where new systems are being established or old systems are being improved, the administration will be faced with the question of selecting a definitive system. Three forms of permanent records will need to be kept in most schools, if the purposes of permanent records are to be met. There will of necessity be a cumulative individual-pupil record system, a pupil report-card system, and a pupil attendance-record system. If no other permanent data are needed, there will be in addition a number of forms which are designed to meet temporary needs of the school. The three forms mentioned, while not constituting the whole of the record system, will probably form the core.

RECORD SYSTEMS

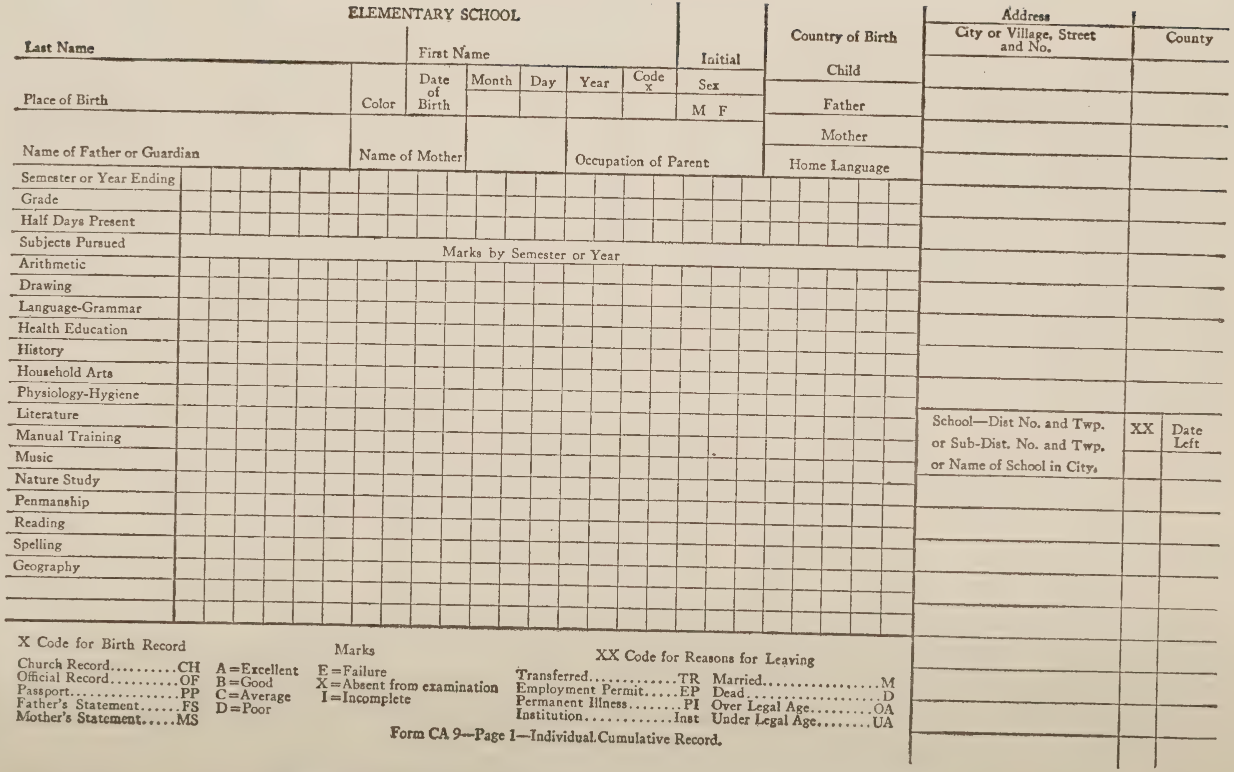
Desirability of compact and available cumulative data. The permanent-record form, in order adequately to fulfill the functions of record forms set forth earlier in this chapter, will provide the major part of the data concerning the pupil which will be needed by the teacher or other officers of the school. To make the record complete, the information will need to be cumulative. Cumulative records not only give school-life case histories of pupils but also present the data in a compact and readily available form. The pupil is the unit. All significant data concerning him are therefore to be kept as a unit. This makes advisable the adoption of twelve-year records where school systems operate through twelve grades.

Pupils will attend different schools within a system, and will transfer from system to system. Because of this shift, the high-school record-keeping will need to fit in with the recording plans of the rest of the school system, although the junior-senior high-school phases will be designed to suit the needs peculiar to these two units. Thus, where a pupil, during his career, attends a number of different schools, a cumulative record card, with data complete to the date of his withdrawal from each school, will be on file in the school from which he withdraws. Duplicates of this record may be sent to a central office, which is usually the office of the superintendent, and to the principal of the school to which the pupil transfers. If a pupil comes to the high school from a system where cumulative records are not available, the office secretary can usually obtain a considerable part of the history of the pupil for patching up the record by getting whatever information is obtainable from each of the individual grades or units in which the pupil has previously enrolled. The value of the information thus gained will justify the effort. In this way, too, the records of each individual will be as complete as it is possible to make them, and the information will be kept as a compact and convenient unit.

The nature of the record. A cumulative individual-pupil record card which meets, with respect to the items included, the essential qualifications of a good record has been adopted by the State of Michigan. The card is in six parts. Figure 45, pages 574 to 579, shows the form designed for use in larger systems. A modified form was adopted for rural districts. Although it was intended that the use of the cumulative forms be uniform, such has never actually been the case. The law was not mandatory. Many schools in Michigan have never used the form.

Scrutiny of this form reveals the presence on it of a large number of items not found in the usual meager school record form. A state uniform system wherein such data are carefully collected and recorded in every school would make available for local school officers a wealth of evidence which could be used for purposes of guidance, research, and improvement of teaching and school reports.

If the items on the card are checked with the list of items in Table 96, page 570, however, it will be found that some of the items which the experts thought ranked high in importance are not on the card. For instance, of the first 20 items, age of entrance (5), school entered from (7), date of school entrance (16), class scores in standard tests (17), honors received (18), and credits upon entrance (19) are missing. These items are personal data of enough importance to justify including them.



ELEMENTARY SCHOOL

Last Name | First Name | Initial | Country of Birth | Address: City or Village, Street and No. | County

Place of Birth | Color | Date of Birth: Month, Day, Year | Code x | Sex: M F | Child | Father

Name of Father or Guardian | Name of Mother | Occupation of Parent | Mother | Home Language

Semester or Year Ending
Grade
Half Days Present
Subjects Pursued — Marks by Semester or Year
Arithmetic
Drawing
Language-Grammar
Health Education
History
Household Arts
Physiology-Hygiene
Literature
Manual Training
Music
Nature Study
Penmanship
Reading
Spelling
Geography

School—Dist No. and Twp. or Sub-Dist. No. and Twp. or Name of School in City. | XX | Date Left

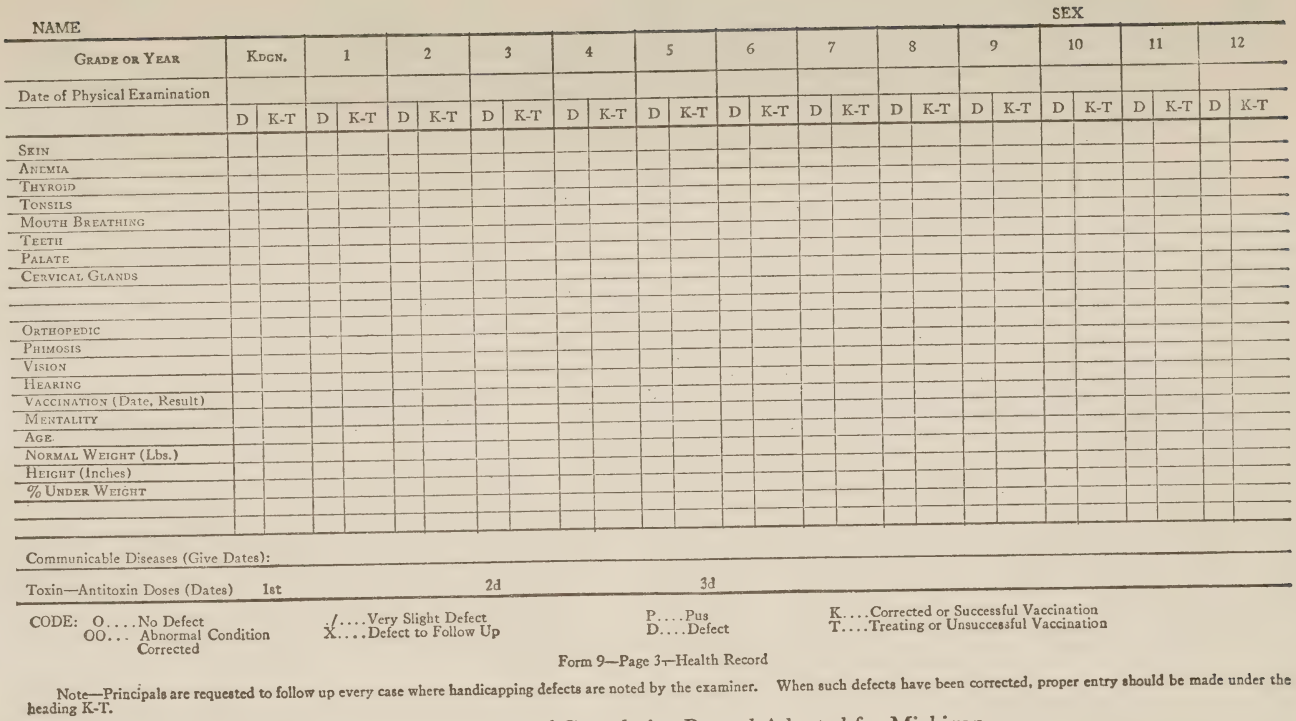
X Code for Birth Record
Church Record..........CH
Official Record..........OF
Passport................PP
Father's Statement......FS
Mother's Statement.....MS

Marks
A=Excellent
B=Good
C=Average
D=Poor
E=Failure
X=Absent from examination
I=Incomplete

XX Code for Reasons for Leaving
Transferred............TR
Employment Permit.....EP
Permanent Illness........PI
Institution............Inst
Married.................M
Dead....................D
Over Legal Age.........OA
Under Legal Age........UA

Form CA 9—Page 1—Individual Cumulative Record.

FIGURE 45A. Page 1 of Cumulative Record Adopted for Michigan



NAME SEX

Grade or Year	Kdgn.		1		2		3		4		5		6		7		8		9		10		11		12	
Date of Physical Examination																										
	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T	D	K-T
Skin																										
Anemia																										
Thyroid																										
Tonsils																										
Mouth Breathing																										
Teeth																										
Palate																										
Cervical Glands																										
Orthopedic																										
Phimosis																										
Vision																										
Hearing																										
Vaccination (Date, Result)																										
Mentality																										
Age																										
Normal Weight (Lbs.)																										
Height (Inches)																										
% Under Weight																										

Communicable Diseases (Give Dates):

Toxin—Antitoxin Doses (Dates) 1st 2d 3d

CODE:
O....No Defect
OO... Abnormal Condition Corrected
./....Very Slight Defect
X....Defect to Follow Up
P....Pus
D....Defect
K....Corrected or Successful Vaccination
T....Treating or Unsuccessful Vaccination

Form 9—Page 3—Health Record

Note—Principals are requested to follow up every case where handicapping defects are noted by the examiner. When such defects have been corrected, proper entry should be made under the heading K-T.

FIGURE 45B. Page 2 of Cumulative Record Adopted for Michigan

I. IDEALS AND CHARACTER	III. SELF DIRECTION: INITIATIVE
II. SELF APPRAISAL: JUDGMENT	IV. CO-OPERATIVE EFFORT: SOCIAL ATTITUDE

Form 9—Page 5—Record of Vital Emotional Characteristics

The spaces under each heading are for the entire school life of a child Teachers are requested to use space sparingly and to record only worthwhile observations.

FIGURE 45C. Page 3 of Cumulative Record Adopted for Michigan

Junior and Senior High School

Name

															Units of Credit
Semester Ending															
Grade															
Half Days Present															
Health															
Foreign Language															
English															
Mathematics															
Natural Sciences															

Semester Ending															Units of Credit
Grade															
Social Studies (Civics, History, Economics, Sociology)															
Vocational															
Fine Arts															
Totals															

Form 9—Page 2—Intermediate and High School Record

Note—To secure uniformity it was deemed advisable to use the Units of Credit as the Standard. The definition of a Unit of Credit shall be that adopted by the North Central Association of Colleges and Secondary Schools. (Proceedings of 1923, Part I, P. 28.)

FIGURE 45D. Page 4 of Cumulative Record Adopted for Michigan

	COMPOSITION			HANDWRITING			READING				SPELLING			ARITHMETIC					DATE			GROUP TEST		INDIVIDUAL			
GRADE AND CLASS	RATE	QUALITY	GRADE LEVEL	RATE	QUALITY	GRADE LEVEL	NAME OF TEST	RATE	COMPREHENSION	GRADE LEVEL	NAME OF TEST	SCORE	GRADE LEVEL	NAME OF TEST	RATE	ACCURACY	GRADE LEVEL	NAME OF TEST	MONTH	YEAR	CHRONOLOGICAL AGE	SCORE	LETTER RATING	MENTAL AGE	I. Q.	GRADE LEVEL	

Form 9—Page 4—Achievement and Mental Tests Record

Note—In using grade levels that involve two factors they may be written 80/70. In these cases the number above the line shall represent rate.

FIGURE 45E. Page 5 of Cumulative Record Adopted for Michigan

VOCATIONAL INFORMATION	NOTES

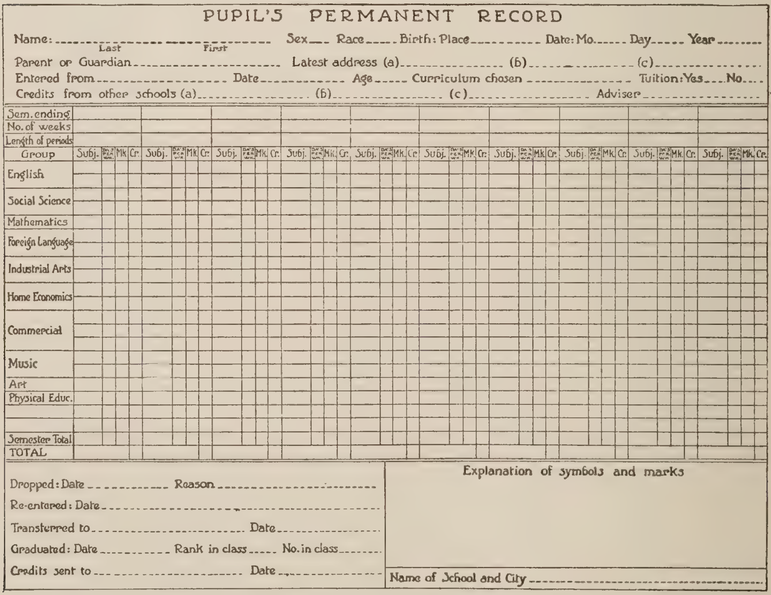
Form 9—Page 6—Vocational Tendencies

The space under these headings are for the entire school life of a child. Make only brief worthwhile observations. The space under notes is to provide for any points not provided for elsewhere in the record, i. e., trouble case, etc.

FIGURE 45F. Page 6 of Cumulative Record Adopted for Michigan

The Michigan card has many excellent features. The omission on it of some important items only illustrates the need, wherever uniformity is being achieved, of having the items which are included determined through careful study.

A pupil's permanent record was designed by the Commission on Standard Forms of the Department of Secondary-School Principals of the National Education Association. It contains the items shown by the research previously described to be considered of most importance. The recommended form is reproduced in figures 46A and 46B. The arrangement of the card and the items contained on it make it a form to be commended for consideration, adoption, or adaptation in schools which have not completely abandoned the marking system, as may be inferred from the section on informal records. (See pages 586 and 587.) Any important deficiencies this card may have for the individual school that aims to keep abreast of modern practices without abandoning marks will arise from recent developments in measurement or in the rating of traits, which have come into considerable prominence in recent years. It should not be difficult to adapt the form to the needs of such schools.



PUPIL'S PERMANENT RECORD

Name: ________ Last ________ First ________ Sex___ Race_____ Birth: Place__________ Date: Mo._____ Day_____ Year________
Parent or Guardian______________________ Latest address (a)________________ (b)________________ (c)________________
Entered from___________________ Date_____________ Age_____ Curriculum chosen _______________ Tuition: Yes___ No___
Credits from other schools (a)________________ (b)________________ (c)_________________ Adviser__________________

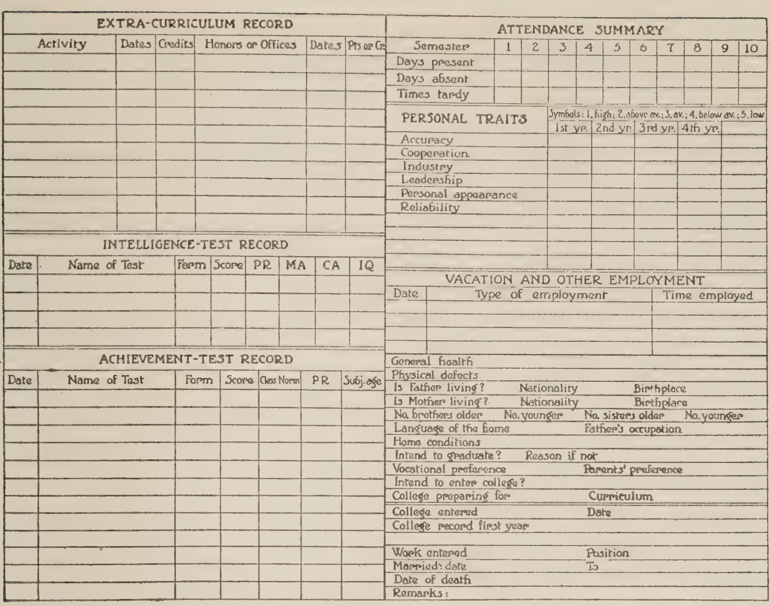
Sem. ending																																								
No. of weeks																																								
Length of periods																																								
Group	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.	Subj.	Da's per wk.	Mk.	Cr.
English																																								
Social Science																																								
Mathematics																																								
Foreign Language																																								
Industrial Arts																																								
Home Economics																																								
Commercial																																								
Music																																								
Art																																								
Physical Educ.																																								
Semester Total																																								
TOTAL																																								

Dropped: Date ____________ Reason __________________________
Re-entered: Date ____
Transferred to_________________________ Date________________
Graduated: Date ___________ Rank in class _____ No. in class _______
Credits sent to ______________________ Date ________________

Explanation of symbols and marks

Name of School and City ____________________________________

FIGURE 46A. Face of Pupil's Permanent Record Devised for the Commission on Standard Forms of the Department of Secondary-School Principals



EXTRA-CURRICULUM RECORD

Activity	Dates	Credits	Honors or Offices	Dates	Pts or Cr

INTELLIGENCE-TEST RECORD

Date	Name of Test	Form	Score	PR	MA	CA	IQ

ACHIEVEMENT-TEST RECORD

Date	Name of Test	Form	Score	Class Norm	PR	Subj. age

ATTENDANCE SUMMARY

Semester	1	2	3	4	5	6	7	8	9	10
Days present										
Days absent										
Times tardy										

PERSONAL TRAITS	Symbols: 1, high; 2, above av.; 3, av.; 4, below av.; 5, low				
	1st yr.	2nd yr.	3rd yr.	4th yr.	
Accuracy					
Cooperation					
Industry					
Leadership					
Personal appearance					
Reliability					

VACATION AND OTHER EMPLOYMENT

Date	Type of employment	Time employed

General health
Physical defects
Is Father living? Nationality Birthplace
Is Mother living? Nationality Birthplace
No. brothers older No. younger No. sisters older No. younger
Language of the home Father's occupation
Home conditions
Intend to graduate? Reason if not
Vocational preference Parents' preference
Intend to enter college?
College preparing for Curriculum
College entered Date
College record first year

Work entered Position
Married: date To
Date of death
Remarks:

FIGURE 46B. Back of Pupil's Permanent Record Devised for the Commission on Standard Forms of the Department of Secondary-School Principals

The "profile" type of record form. The term *profile*, as applied to school records, is used in two senses. In one of these a number of measures, such as percentile ranks on standard or locally made tests in a number of different subjects or abilities, are recorded as points on parallel lines on the form for a given pupil, and the points are joined by lines to make the profile for that pupil. This type of profile is helpful to an understanding of the pupil's scholastic strengths and weaknesses, and it aids in identifying marked differences from one subject or ability to another. This type of recording is used chiefly in schools in which a relatively large number of standardized tests are regularly administered. It is used more often at elementary-school and junior-high-school levels than in senior and four-year high schools.

The other usage of the term is in connection with the record of a given pupil over a period of years. The measures used in determining the points on the parallel lines may be the percentile ranks, deciles, or standard deviations of the marks earned by the pupil in his subjects. As with the type previously discussed, the profile is made by joining the points. This type of profile is useful in making readily available a comparison of the general scholarship of the pupil with that of his classmates and in indicating any important shift upward or downward of his scholarship at successive intervals, say of terms, semesters, or years. A school which appears to be making successful use of this type of profile is the University High School of the University of Minnesota.[1]

Care of the records. The destruction of the data contained on a permanent-record card constitutes an irreparable loss. Loss may come about through fire, through misplacement by careless and incompetent workers, and through many types of irregularities. Card systems, more than any other, are susceptible to misplacement. Special care in filing and in handling is therefore desirable. Destruction is safeguarded if cards are kept in duplicate in the superintendent's office. Persons not connected with the school who desire to use the cards may be routed through the superintendent's office. Those within the school who use the records may be taught to aid in keeping the record system free from irregularities. Needless to say, when a card is missed, a duplicate should be made immediately by reference to the card in the superintendent's office. Irregularities may also be partially guarded against if cards for pupils enrolled in the school are kept in one file—the "live" one—and those for pupils who have withdrawn are kept in another—the "dead" file. A system of filing is therefore a necessity to good record-keeping.

MARKS AND MARKING

Why considered here. A brief treatment of the problem of marks and marking seems desirable at this point, although full consideration of the whole question of marking or other evaluation is not appropriate in a treatise on school administration. After all, evaluation is an important aspect of supervision and instruction rather than of administration. However, one of the most important entries on the record forms under consideration in the foregoing section is the indication of the degree of success of the pupil in his work, whatever type of indication is used. Also, the nature of the indication of success largely determines the character and form of the report on pupils to parents, which is considered in a later section.

Forms of marks used. The form in which marks are recorded in secondary schools has often been investigated. One of the latest inquiries was made as part of the National Survey of Secondary Education.[1] The frequencies reported for the different forms are shown in Table 97. These frequencies make it clear that at the date of the inquiry (about 1930) in the somewhat selected group of schools represented the overwhelmingly predominant practice was to assign letters or similar symbols. The greatly discredited system of marks indicated in percentages was still in use in a full fourth of the schools. Only two of the forms listed in the table, "Written records or logs of pupils' progress" and "Accomplishment quotients," do not involve the traditional competitive comparison, and the frequencies reported for these two forms are small.

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[1] See Royal B. Embree, Jr., "A Cumulative-Record System Based on Permanent Standard Scores for Intelligence Quotient and Achievement," *School Review*, XLV (June, 1937), 438–446; and "The Cumulative-Record Card as an Aid to Research," *School Review*, XLVII (June, 1939), 425–430.

TABLE 97

FORMS IN WHICH MARKS ARE ISSUED IN 258 SECONDARY SCHOOLS [2]

Form	Frequency *	
	Number	Per cent
Letters or other symbols	210	81
Percentages	67	26
Class ranks	25	9
Percentile ranks	7	3
Written records or logs of pupils' progress	4	2
Accomplishment quotients	2	1
Sigma scores	2	1

* The excess of the total number reported over 258 and of the percentages over 100 is explained by the use of more than one form in some schools.

Efforts at improving the indications of success. This evidence on the frequencies of use of the different forms in which marks are recorded is hardly confirmatory of the rather wide prevalence of discontent with current procedures in indicating the degrees of success of pupils in their work. The fact is that the discontent has for some years been widespread as well as on the increase, and that efforts have been and are being made in many quarters to improve school practice in marking and other evaluation of pupils' activities and attitudes.

Efforts at improvement are conveniently classifiable into two main groups, although there is diversity of experimentation within each group. The first group involves retaining the traditional comparative and competitive system of symbols (for example, A, B, C, D, and F) but undertaking a more definitive designation of values for each symbol in the full array from highest to lowest. As an excellent example of this group may be cited the steps in a "formulation of measures whereby the standard of scholarship might be raised" in the Washington Junior High School of Rochester, New York.[1] The formulation was preceded by a "survey of scholarship" involving a comparison between the final ratings of pupils in courses and the ratings given the same pupils on final examinations. Large discrepancies were found between the two sets of ratings, and efforts were made to explain the discrepancies. The four "measures," or phases, of this program to raise the standard of scholarship in the school included (1) defining the ratings (A, B, C, D, and E) in terms of types of pupils, (2) formulating a standard of desirable study habits, (3) studying and listing the common skills developed in the various subjects of the curriculum, and (4) suggesting measures for remedial activity and prevention of failure. In the endeavor to define the ratings, recourse was had to findings of a systematic inquiry into teachers' and pupils' opinions. The working definitions achieved may be illustrated by quoting what, in this school, are now designated as A and E pupils. In these definitions "pertinently distinguishing characteristics" are indicated by asterisks.

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[1] Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion.* National Survey of Secondary Education, Monograph No. 13, p. 426. United States Office of Education, Bulletin No. 17, 1932.

[2] Roy O. Billett, *ibid.*, p. 426.

A Pupil (95–100 Per Cent, Superior Work)

One (1) whose work consistently shows an intelligent comprehension of the subject matter through his ability to retain facts and principles learned; (2)* who is able to apply subject matter learned to new problems; (3) who organizes his work well; (4) who speaks clearly and forcibly in discussions; (5) who presents neat, well-arranged, accurate, complete work on time; (6)* who performs required skills with a high degree of technique; (7) who completes both the average and the enriched assignment; (8) who has good study habits; (9) who has the power of analyzing his own work to discover his strong and weak points; (10)* who shows marked initiative, industry, and attention.

E Pupil (0–64 Per Cent, Failure)

One (1)* who is incapable of doing the work of his grade or who is not interested and makes little effort; (2) who takes little part in oral discussion; (3) whose work is careless, untidy, inaccurate, or incomplete; (4) whose vocabulary is very limited; (5) whose span of attention is short; (6) who may have much absence; (7) who has poor study habits.[2]

The other main group of efforts at improving appraisal of pupils' work may be considered more fundamental than those which aim at redefinition of the marks in common vogue in the schools—more fundamental even than such a comprehensive program as that in the Washington Junior High School in Rochester, as just described. The group is regarded as more fundamental because the efforts are in harmony with a shift in the basic conception of the educative process. This concept views education as growth through reconstruction and enrichment of experience, which is the purpose and end of living as well as of education. Central to this concept is the belief that each individual is unique. Instead of attempting to iron out individual differences or to compare one pupil with another, the concept implies that differences in considerable part should be fostered and socialized. This view of education widens the range of educational objectives, stressing intelligent purposing in personal and social life and emphasizing social sensitivity and integration of personality. These goals call not only for a new organization of education but also for new evaluative practices. Marking ceases to be exclusively comparative competition; marks are intended to be significant chiefly for the given individual. Techniques of evaluation are more individualized, more descriptive, and in some degree less quantitative and more qualitative than comparative marking. The attempt is made to specify a variety of aspects of the pupil's growth and development; these aspects become the objectives, and evaluation is for the purpose of ascertaining the extent of development toward the objectives.

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[1] The description given here is based on a report of the innovation published in the *School Review*, XLVI (January, 1938), 3–5.

[2] *Ibid.*, p. 4.

Forms of records in evaluative reports. The procedures and forms of records used in schools operating on this developing conception of education differ as widely as the degrees to which the new conception has been put into effect. In schools where application has been carried furthest, the appraisals may be cast in terms of ratings in the attainment of objectives largely in disregard of boundaries of subjects or courses. For instance, a school may set up as objectives critical thinking, mental and physical health, and social co-operation. The general category of the objective of critical thinking may be broken into a number of subobjectives, such as ability to discover and define problems, ability to organize information, and ability to apply generalizations to novel situations. The ratings of the pupil on these subobjectives may be in terms of such characterizations as "possessed to a high degree," "average ability," "possessed to a very limited extent," and "no opportunity to observe." Symbols like A, B, C, and D may be used to indicate the characterizations. Other schools may follow the device of rating pupils in individual subjects or courses, with ratings on a number of "purposes" or "habits of work" more or less peculiar to each course or field of instruction. An instance of this sort is supplied in the form reproduced from the University High School of the University of Chicago in the section below, dealing with the pupil report card. This type of form is interchangeably usable as a record and a report to parents.

In still other schools in this group the record may be in the form of a paragraph or paragraphs descriptive of the pupil's work and growth. The following appraisal of one pupil's year in a course in literature may serve as an instance of this type of record:

> Edward has maintained a consistently excellent standard throughout the year. In many phases he has shown mature development. His reading background, always sufficiently great in quantity, has broadened to include various types of classic and modern literature. Characteristically, he has requested and followed suggestions for improving his reading. His comments, written and oral, have indicated his comprehension of subtle implications and his enjoyment of the literary qualities.

Informal records. Reference to the form of record last illustrated directs attention to a great variety of informal records kept in secondary schools. These informal records are kept for various purposes both in schools depending chiefly for records of appraisal on the traditional comparative marks and in schools committed to the new conception of education described above, but more often in the latter. For the most part, they are in use as supplementary means of appraisal. Two forms which have come into general use by faculties to supplement other data may be given special mention because of the wider uses which may be served by them. These are the *behavior journals* and the *anecdotal records.* Because of wide variation in their manner of use, neither of these terms can be given a fully definitive meaning, nor are they clearly distinguishable from each other in function or form. A brief characterization of each may serve at least to indicate in some degree what they are like and why they afford some promise.

The behavior journal, as kept in many schools, is a system of individual folders in which is kept much valuable information about particular pupils. This information may be in the form of character sketches of the individual pupil which have been written by teachers who are well acquainted with him. Comments on work done by the pupil, or on changes in attitude, or on many other items may be included. Any kind of information that will be of help to teachers, guidance officers, deans, and others may be filed in the behavior-journal folders. The personnel information in these folders may then serve as a valuable supplement to that entered on the other records of the school.

The anecdotal record is an attempt to obtain information about a pupil which is more objective and more revealing than that ordinarily kept in behavior journals. It is more the report of an observation without the bias of the observer and hence without interpretation by him. The criteria for anecdotes proposed by the Progressive Education Association are as follows:

> They should be brief; they should tell what actually happened; they should deal with a single situation even of long duration; they should be recorded individually; they should be described as a part of the setting or background; they should be drawn as frequently as possible from spontaneous actions; they should be written while the behavior is still vivid to the observer; attention of the reader must go to the significant part of the report; they should include descriptions of actual behavior of children in addition to their conversations; they should cover a wide range of the student's time and should not be confined to formal classroom situations; a collection of anecdotes about any one student should represent the writings of all observers who have frequent contact with him; and they should represent the purposes and desires of the learner and not the mechanical response to a teacher-dominated situation.[1]

The following is illustrative:

> Jane's report cards were marked today. Although very good, her marks were lower than usual and upset her terribly. She sulked all during class period and refused to work, answer questions, etc. In the home room she was cross, slammed desks and books, and paid no attention to what she was asked to do.[2]

Records of this nature, which may be kept in behavior journals, are revealing, but valuable only where there is a constructive educational program which calls for the use of such information. At present such records are available only in a small number of schools. Persons interested in further examples of this type of record will find them in *Were We Guinea Pigs?*[3] The type of reports to parents in which they may eventuate is indicated in the section on pupil report cards. (See pages 592 to 598.)

Usefulness of comparative measures for prediction. Although the subordination or elimination of competitive emphasis encouraged by comparative marking systems, which is accomplished to an encouraging degree in schools operating on the new concept of education, is desirable, comparative measures have an important value that should prevent complete abandonment of efforts to obtain and record them. This is the value for prediction and guidance. For example, probabilities of success in higher institutions can be predicted with some assurance on the basis of rank in class or relative position in a distribution of intelligence quotients or other measures of ability of members of a class. For such purposes certain significant comparative measures should be obtained and kept in pupils' records. Many of the objective procedures used to ascertain the degree of attainment by pupils of objectives in harmony with the new conception will lend themselves to such use. However, care will need to be exercised in making use of them or reporting them to pupils or their parents, lest the aim to maintain a dominantly noncompetitive school be defeated.

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[1] Progressive Education Association, Evaluation in the Eight-Year Study (prepared by Louis Raths), *Anecdotal Records*, p. 30. Bulletin No. 1. Columbus, Ohio: Ohio State University, 1935.

[2] *Ibid.*, p. 47.

[3] Ohio State University, University High School, Class of 1938. *Were We Guinea Pigs?* Chap. XI. New York: Henry Holt & Company, Inc., 1938.

The effect on records and recording of policy concerning marking and appraisal. It is apparent that policies and methods of appraisal will affect greatly the form of records kept in a school and the magnitude of the responsibilities involved in keeping them. Any degree of committal to appraisal in harmony with the new concept of education to which reference has been made must increase the tasks of record-keeping. Recordings are certain to be more extensive, calling for more elaborate forms, more space in the files for them, and more time of teachers or clerical assistants or both in keeping them. For many schools these added responsibilities are a deterrent to committal to the new policies, especially where teachers are already overburdened with other responsibilities or where clerical assistance is insufficient. It goes without saying that changes in policy and practice should be carefully considered and their effect on the details of administration fully projected.

FILING PROCEDURES

Importance of system. Papers and documents which are of sufficient value to be preserved for later reference need to be kept systematically. A system for keeping materials is not alone economical of time and money; it often gives positive encouragement to careful educational planning through the fact that, when one plans a system of filing, he is led to decide what papers and records are of value.

Planning the system. An effective and satisfactory filing system must meet two requirements as a minimum: (1) Papers, documents, reports, and the like must be filed and cleared from office desks as soon as they become inactive; (2) these same papers must be instantly accessible and available for reference when wanted. The larger the school office, the more complex the filing function becomes; but the function is equally important whether the office is large or small.

In setting up the machinery for carrying out the filing function, the following sequence of procedure is suggested:

(1) A study to determine the volume of material to be filed.
(2) An analysis of the content of all material to be filed. (This should include material ordinarily filed in decentralized departments or special offices.)
(3) A systematic classification of the material in accordance with the analysis.
(4) The selection, adoption, or adaptation of a filing system to fit the classification.
(5) A planned degree of centralization, of organization set-up, and of office layout for the filing activities.
(6) Selection of new equipment or adaptation of old equipment to the new system's needs.

The classification of materials represented in (3) above and the selection of a filing system usually present the greatest problems. Many elaborate systems have been developed; all have their advantages and disadvantages, depending on the type of material and the quantity of papers and records to be filed. The system selected should be simple—as simple as it can be made and yet meet the requirements as revealed by the analysis. Perhaps the best way of indicating the nature of a filing system is to show an example of a desirable, simple, and economical plan now in use in the offices of a well-known four-year township high school [1] having an enrollment of well over 2000 pupils. The plan of classification is a simple adaptation of the Dewey Decimal System used by most libraries. The material, after analysis, falls into nine or ten main headings, to each of which a file number is assigned. The file numbers of the headings are 10 and multiples of 10. For example:

	File Classification	*Location*
File No. 10.	Board of Education	Office of Secretary of Board
	10.1 Committee Meetings and Recommendations	
	10.2 Board Members' Personal Correspondence	
	10.3 Board Meetings—Minutes	
	10.4	

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[1] The filing system here analyzed is in use in New Trier Township High School, Winnetka, Illinois.

	File Classification	*Location*
File No. 20.	Teachers	Principal's Office
	20.1 Individual Teachers' Folios (Present Staff)	
	20.2 Individual Teachers' Folios (Former Teachers)	
	20.3 Applications on File (alphabetical by names)	
	20.4	
File No. 30.	Departments (Instructional)	Principal's Office
	30.1 Reports	
	30.2 Courses of Study	
	30.3	
File No. 40.	Director of Reference and Research	Office of Director of Reference and Research
	40.1 Reports and Recommendations	
	40.2 Manuals of Procedure	
	40.3 Test Records	
	40.4	
File No. 50.	General File	Principal's Office
	50.1 50.2 50.3 50.4 } By subject index	
File No. 60.	General File (Local) Memos, data, reports, not in other files. Alphabetically arranged by subjects in subclasses	Principal's Office
	60.1 Adviser Chairman's General Reports	
	60.2	
	60.3	
	60.4 Deans' Reports	
File No. 70.	Student Records	Registrar's Office
	70.1 Student Folios (alphabetical by name)	
	70.2 Permanent-Record File (alphabetical by name)	
	70.3 Alumni Records	
	70.31 College marks	
	70.32	
	etc.	
File No. 80.	Special Files	Principal's Office or Where Most In Use
	80.1 Bulletin File	
	80.2 School Newspapers	
	80.3 College Catalogues	
	80.4	
	etc.	

	File Classification	*Location*
File No. 90.	(Open for subject assignment)	
File No. 100.	Principal's (or Superintendent's) Personal File	Principal's Office
File No. 110.	(Open for assignment)	

This classification system is given only in skeleton form with many subdivisions omitted. It is obvious that the classification must vary with every office and with the ideas of persons in charge of the filing function or procedure. High schools in city or other unit systems may not need some of the classifications which appear in the independent type of organization represented in a township high school. The system can be further simplified and modified in small high schools. However, the need for some classification exists in all types of schools where records are kept and materials are preserved. The main classification headings should be determined with caution, and every care should be taken to see that such headings are sufficiently broad and at the same time definitive enough to avoid serious overlapping. The main classifications should, if possible, number fewer than ten. The fewer the classifications, the more easily they are memorized by those who handle the files.

Filing. All filing by subject should be done by persons who are thoroughly familiar with the classification. Usually and preferably, the principal's secretary, if he has one, is the proper person to handle or direct all the subject filing. The analysis of a given paper and assignment of its proper classification before filing requires the attention of someone trained in the system. For ordinary alphabetical-by-name filing, or for chronological records, and so on, the problem is, of course, less complex.

With the system just described, two types of codes or index devices are kept. One is a card index and the other a small loose-leaf outline of the classification in skeleton form. The latter device follows closely the classification outline illustrated on pages 589 to 591. These devices are economical of time and effort. With a paper to file before her, the secretary or file clerk consults the small loose-leaf classification and decides in which subject file and subdivision the paper belongs. If she files the paper herself, she copies the subdivision title and number on an ordinary 3-by-5 filing card and adds some further title of identification taken from the body of the paper. The paper is then filed in its proper folio, or a new folder is made, if necessary.

When a paper is to be found in the files, a written memorandum or request to the file clerk or secretary is made. The clerk searches the card index, under the most probable heading, for the title of the paper. If the paper is not to be found under the title submitted, the clerk will try other kindred classifications, failing in which, she may ask the person calling for the document to supply additional identifying information. However, the first request will usually locate the material wanted if classification has been accurate. The memorandum of request is placed in the folio, with a notation to indicate when the paper left the files and who received it. In many offices it is considered better practice to maintain a current tickler file for the request memoranda, in order to keep stricter control of papers "out-of-file." Under the latter system the file clerk can call for the return of papers held for unreasonable lengths of time.

When papers are returned, they should be replaced in the files by the person regularly in charge of the files and by no one else. This precaution is obviously necessary on account of the amount of care requisite to correct filing by subject and the fact that a paper once wrongly filed in a large file is almost hopelessly lost.

Periodically the files should be searched and cleared of all papers which are considered definitely inactive. Such papers may be transferred to storage files for indefinite storage or destroyed, as judgment dictates.

Space and equipment. Most of what has been said in this section on the filing system is descriptive of the approach to the filing problem and to the choice of a system. The remainder of the problem is simpler. The degree of decentralization (distribution of files and records at points not in the administrator's personal office), the planning of filing-space layout (see drawings of layouts reproduced in figures 43 and 44, pages 517 and 518), and the selection of suitable equipment are so essentially and directly dependent upon individual conditions that suggestions here are hardly desirable. The administrative organization, the architectural layout, the types and forms of records and reports in use, the funds available for maintaining a satisfactory set of files—matters mentioned elsewhere in this book—all have their bearing. Help may be obtained from several standard reference works on business-office management in which one can find complete and thorough treatment of the general filing problem.

THE PUPIL REPORT CARD

The needs served by report cards. The pupil report card is the one agency universally employed by the school as a communicating medium between the home and the classroom. It serves as the principal means of conveying the message of the school to parents. Hence it becomes the purveyor of enlightening information that builds good will or ill will, enlists or alienates co-operative endeavor, and invites or diverts support. It is an instrument of considerable possibilities.

Analysis of report cards used in practice reveals that the majority are poorly suited to fulfill any of the urgent needs they are generally supposed to serve. A survey of report cards made by Chapman and Ashbaugh [1] showed that in the majority of cases there were but three main items on them: teachers' marks, attendance, and deportment. Such messages are not comprehensive and often are not meaningful. It may be that the effect of such reports, periodically and perfunctorily sent to the home, is actually often negative and inimical to desirable school-and-home relations. In general, parents need information which is definitive, specific, and significant. Does not the parent need to know something about the requirements of the school; which of them the pupil has met and which he has not met; how he stands on tests; whether he is prompt, courteous, and honest; whether or not he exercises self-control, has cleanly habits, and the like? In other words, does not the parent, after all, desire to have information along the lines that he needs to know in order to become a co-operative agent with the school? Certainly the school should aim to give the parent information which will enable him to be intelligent about the work of his child, for without such information intelligent co-operation between parent and school is out of the question.

Nature of the report card. The nature of the report card should be determined, therefore, by the needs to be served. Report cards used in a high school where the older marking practices are followed and where pupils pursue programs which are largely prescribed will need to be different from those used in a high school where an attempt is made to free pupils from the tensions of the traditional school. In schools where extrinsic awards such as marks, honors, and the like are dispensed with and where failures are not permitted, where formal assignments are minimized and where pupil planning is emphasized in determining what activities pupils shall engage in, the report card must be planned to harmonize with these efforts.

Consequently, as is true of filing systems, one can scarcely indicate what a report card ought to be like without considerable knowledge of the policies of the school. The card must be planned so as to reflect these policies, and these policies differ widely from school to school. Formal schools may and do use formal report cards; less formal schools use cards which are less formal. No doubt some formal report cards are superior in design to others, just as some formal systems of competitive marking are superior to others. Since formal education is being subjected to intensive criticism at the present time, all the mechanical arrangements that go with formal education may be subjected to the same criticism.

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[1] H. B. Chapman and E. J. Ashbaugh, "Report Cards in American Cities," *Educational Research Bulletin* (Ohio State University), IV (October 7, 1925), 289–293.

In some schools the traditional report card would be practically useless. These are schools in which heavy reliance is placed on the new methods of appraisal described in the section dealing with marks and marking. For instance, in the Ohio State University Experimental School, letters to parents supplant report cards. These letters are sent to parents as often as seems advisable, but never less than twice a year and in most cases oftener, sometimes as many as ten letters a year being sent to a parent. The letters may be written when a pupil is having difficulty, when he is showing marked improvement, or when parents need to know the nature and character of his development. Nature of the pupil's class work; his ability to plan his own work, to co-operate with others, to contribute to group interests, to evaluate his growth, and to analyze his own mastery; his development of essential habits and skills; and his interests, health, personal habits, and social sensitiveness —all these may be subjects of comment. Co-operation of parents is solicited, conferences are encouraged, and ways and means for co-ordinating the common efforts of school and home are suggested. The letters are personal, and they harmonize with the determined effort of the school to develop each pupil in terms of his unique individuality.

The earlier section on informal records (page 587), which dealt with behavior journals and anecdotal records, anticipated the type of report to parents which has just been described. At that point reference was made to a chapter on records and reports in *Were We Guinea Pigs?*[1] prepared by the first graduating class of the high school of the Ohio State University. Most of the chapter consists of illustrations of the records kept in the school, but a few pages near the end discuss and illustrate the type of report made to parents and compare this type with that sent out in schools in which reports are made in terms of marks. The single illustration used is the type that would naturally derive from the anecdotal record. In this illustration, the teacher says of John Doe, a pupil in social science in Grade XII:

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[1] Ohio State University, University High School, Class of 1938. *Were We Guinea Pigs?* Chap. XI. New York: Henry Holt & Company, Inc., 1938.

> John's attitude is improving, although he still has a tendency to be overemotional. He showed fair understanding of the historical period studied in a recent test and is slowly becoming interested in social problems.[1]

Often the policy determining the reporting of achievment in the form of marks controls the form of the report card. In schools where marking standards are so set up so as to encourage a more nearly uniform procedure among the various teachers in awarding marks, the report card is likely to be designed to fit in with the accepted definitions of the marks. The National Survey of Secondary Education [2] reports a city in which a policy is in vogue whereby secondary-school pupils in different ability groups are marked differently. In this system, four types of report cards are used. The pupils are grouped into three ability levels. One type of report card is for the first level, another for the second, another for the third, and a fourth for pupils in ungrouped sections. For pupils of the highest level the marks are A, B, C, D, and E; for those of the middle level, B, C, D, E, and F; for those of the lowest level C, D, E, F, and G. For the ungrouped sections the full range of the marks A, B, C, D, and E is employed. Marks E, F, and G are considered unsatisfactory. Definitions of marks vary from card to card. Thus, D is defined as "below average" in the highest sections, "average" in the middle sections, and "above average" in the low sections.

A survey of formal report cards shows the existence of many ways of informing parents of the meaning of the report. Some schools resort to graphs to show the pupil's relative standing, possibly because, as was indicated in the section on marks and marking, the more successful efforts at interpretation of marks for pupils and parents have been those efforts to express marks in relative rather than absolute terms. In some cases the relative position is denoted by giving some notion of the individual's rank relative to others of his group. Sometimes this is done by denoting the pupil's standing with respect to the average, such as showing how he departs from the average or how he stands in comparison with the highest and lowest scores received.

By and large, in all these systems the principle is the same: the report card is designed to interpret to parent and pupil the relative status of the pupil. The policy of the school with respect to defining or describing this status is the chief criterion for determining the nature of this report. It may be added that many of the elaborate efforts to improve reports have resulted in changes which have been neither fundamental nor significant. The tradition intrenched in most schools and communities, that formal reporting must take place every month or six weeks, at times causes such reporting to become stereotyped and often more or less meaningless. Teachers come to look upon the making out of such reports with utter distaste and to view one kind of report as being as meaningless as another.

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[1] *Ibid.*, p. 293.

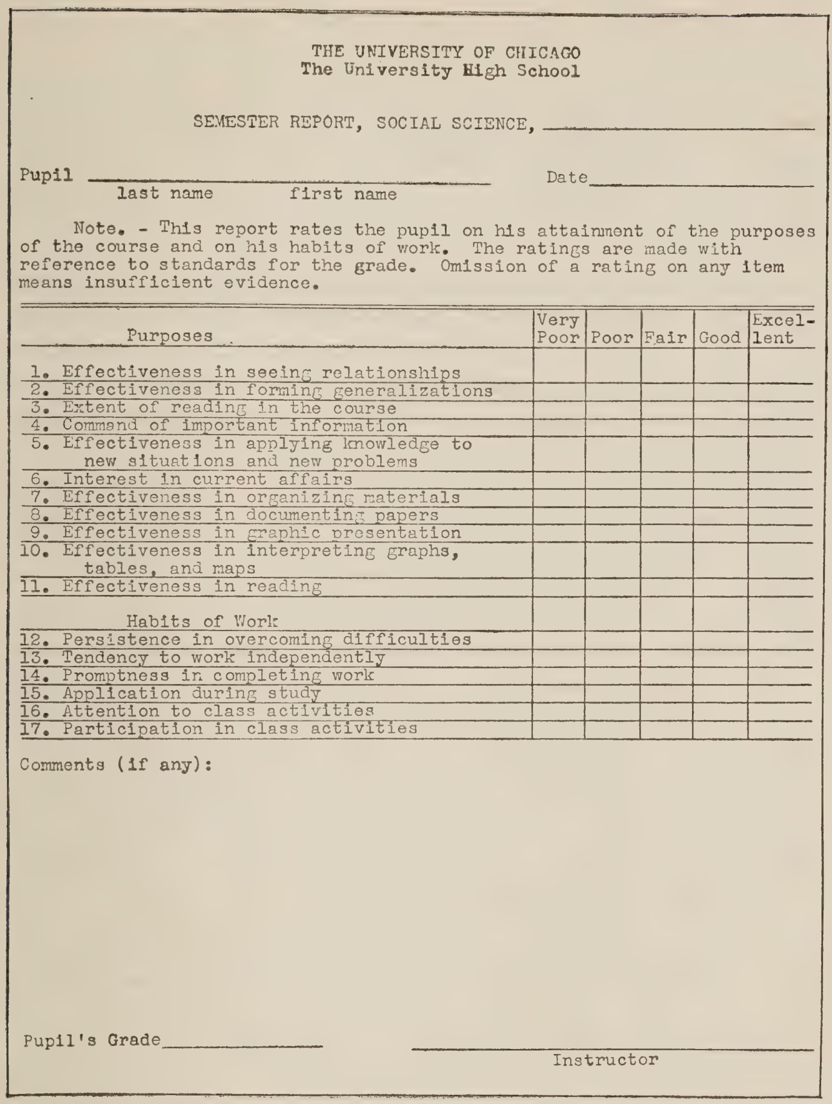
[2] Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*, p. 444. National Survey of Secondary Education, Monograph No. 13. United States Office of Education, Bulletin No. 17, 1932.

The solution of the problem does not lie in trying to improve the report card. It lies in first changing the educational policies of the school which the report card is designed to reflect.

Resort to rating in reports to parents. A form of report which has been gaining vogue is one in which the pupil is rated on a number of categories in relation to each subject being taken, so as to give the parent a much better understanding of the pupil's strengths and weaknesses than could be given by the single mark for a subject used in the typical report card. The categories reflect the nature of the subject and therefore vary somewhat from subject to subject. This variation calls for a different form for each subject. The type of form referred to is illustrated in Figure 47, which reproduces the form for social science in the University High School of the University of Chicago. It may be noted that the form provides for ratings (by check mark) in five gradations ranging from "Very Poor" to "Excellent" on eleven "Purposes" and six "Habits of Work." Certain of the purposes may be seen to be peculiar to social science. It should be noted, further, that space for "Comments" by the teacher is provided, as well as for the "Grade," or mark. The comments are sometimes similar to the anecdotal records and reports made in schools that have abandoned the traditional mark.

Certain schools make rating reports to parents that in degree of detail lie somewhere between the simple single mark on each subject and the more elaborate device in rating just illustrated. One such form provides space for rating the pupil S (satisfactory) or U (unsatisfactory) in each of the "areas" (subject fields) in which he is doing work on four categories, namely "Intelligent self-direction," "Knowledge and skills," "Social adjustment," and "Work habits."

Problems of administration. In schools where a formal card is used, the size of the card, what items should be entered on it, how it should be sent to parents and how often it should be sent, how the clerical labor



THE UNIVERSITY OF CHICAGO
The University High School

SEMESTER REPORT, SOCIAL SCIENCE, ______________________

Pupil ______________________________ Date ______________
last name first name

Note. - This report rates the pupil on his attainment of the purposes of the course and on his habits of work. The ratings are made with reference to standards for the grade. Omission of a rating on any item means insufficient evidence.

Purposes	Very Poor	Poor	Fair	Good	Excellent
1. Effectiveness in seeing relationships					
2. Effectiveness in forming generalizations					
3. Extent of reading in the course					
4. Command of important information					
5. Effectiveness in applying knowledge to new situations and new problems					
6. Interest in current affairs					
7. Effectiveness in organizing materials					
8. Effectiveness in documenting papers					
9. Effectiveness in graphic presentation					
10. Effectiveness in interpreting graphs, tables, and maps					
11. Effectiveness in reading					
Habits of Work					
12. Persistence in overcoming difficulties					
13. Tendency to work independently					
14. Promptness in completing work					
15. Application during study					
16. Attention to class activities					
17. Participation in class activities					

Comments (if any):

Pupil's Grade ______________

____
Instructor

FIGURE 47. Rating Form for Social Science Used in the University High School, University of Chicago

should be cared for, how the card should be interpreted to the parents, and similar questions are worthy of canvass within a school, and policies for each should be formulated. Few, if any, of the questions have ready-made answers. Specialists in child accounting favor a standard filing size of 4 inches by 6 inches for formal cards. Ideally, special workers should perform the clerical tasks, although, because of the cost factor, this seems to be an impracticable suggestion for most schools. Children should probably be entrusted with the responsibility of personally taking the report to their parents. The favored frequency of issuance in the school year of thirty-six weeks seems to be every six weeks.

As may be inferred from the section on marks and marking (page 582), the reporting to parents of only traditional marks entails much less in the way of clerical work on the part of teachers and clerical assistants than does a type of report that calls for rating on elaborate forms, for verbal or "anecdotal" comment, or both. This statement is not made as an argument against these newer types of report, but rather to make sure that persons who contemplate using them will anticipate all essential administrative adjustments.

As has been pointed out, the items on the formal cards will be conditioned by the policy of the school toward marking. Newer practices in marking, as described in the section on marks and marking, will necessitate reports much different in nature from those appropriate to the older practices. If, in schools following the older practices, marks should come to be interpreted as the relative position of a pupil in his group, report cards would be made to conform to that concept. If the practice is to evaluate each pupil in terms of his own development, then a totally different form of approach will have to be made. If letters are resorted to, the problem of finding time to write them becomes a critical one in larger schools or in other schools where teachers are otherwise heavily burdened. Finding an adequate array of accurately descriptive phrases is still another problem.

It seems for the present that the problem of reporting pupil progress to parents will remain an acute one until the educational profession has thrown more light on the problem of evaluation. Once light is shed on how to gauge the growth and development of the individual child, there will be little difficulty in devising ways and means of informing parents about the growth of their children. In the meantime, the best must be made of a difficult situation. An effort to understand the problem and some appreciation of the difficulties involved by all concerned will be an aid to progress. Understanding and appreciation on the part of the school head will be fostered by his keeping in touch with the outcomes of projects aiming to improve procedures in evaluation.

ATTENDANCE AND TEACHERS' RECORDS

Who shall be accounted for. All pupils of school age, whether in school or not, are to be accounted for. The taking of the annual continuing school census, the enforcement of the compulsory attendance law, and the accounting for all pupils of school age who are not enrolled in any unit of the school system involve recording activities belonging to the office of the superintendent of schools. The accounting for pupils who are or who should be enrolled within any unit of the system is an activity which belongs to the office of the principal of that unit. Each pupil, then, within a unit must be accounted for by some agency within that unit, until either permanently withdrawn from it or enrolled in another unit. If all enrolled pupils are at all times to be accounted for, there can be no place in an attendance system for so-called "temporary lefts," nor should the practice be continued of dropping the pupils from the roll after they have been absent for three, five, or some other number of days. Such procedures will leave some pupils unaccounted for by either the central office or the high-school office.

Attendance as a measure of school efficiency. If the attendance system within a school is designed to account at all times for all pupils assigned to that unit, then the practice of judging the efficiency of a school by the percentage of pupil attendance should be looked on with disfavor. The method used for accounting for pupils is a much better criterion for judging school efficiency than is the percentage of attendance itself. School efficiency requires that there be some agency provided within the school to keep the school in touch with the pupil while he is absent and at the same time keep the pupil in touch with the school, doing whatever work of adjustment seems needed. Criteria of school efficiency are not met when all that an attendance system within a school is designed to do is to record the attendance or nonattendance of a group of children.

The records needed. Attendance accounting demands a type of record-keeping that will account for every pupil for all hours of all school days. The system can be simple and yet effective. The principal records needed will be an attendance card, a teacher's report, a transfer card, and, possibly, tardy slips, admit slips, and special permits.

The attendance card. The attendance card may be filled out by the pupil or his home-room teacher at the beginning of each year when he enters school. On it are the pupil's name, date of birth, telephone number, grade, daily program, parents' names, and address. The main body of the card contains enough places to keep a record of attendance for each day of each month. The cards, after being filled out, may be classified by grade, as, one group for VII B, one for VII A, and so on. Under each group there might be other groups. It may be desirable for the VII B group to have subgroupings of cards for pupils in actual attendance, pupils temporarily withdrawn and thus candidates for special attention, and pupils reported to be permanently withdrawn.

The grade register. Attendance cards may be used as a source of information for the grade register from which the grade enrollment can be ascertained at any time. The grade register provides spaces for the names of the pupils and the "date entered" and "date left" for each pupil.

The teachers' reports. The teachers assist by keeping records of attendance, including tardiness. These records, reporting absences, may be sent at the beginning of each class period to the principal's office and there classified under pupils' names. If a pupil is absent all day, there will be as many slips for him as there are periods. His record is then transferred to the attendance card already described. In large schools, names of first-period absentees may be mimeographed and the list sent to all teachers. Any changes later in the day can then be reported to the principal's office, thus avoiding making out a report for each period.

Data in this form are available for follow-up. Usually pupils are not permitted to enter a class after absence without having an admission slip from the principal or attendance teacher, showing that proper adjustments have been made or arranged for.

The transfer card. If a pupil transfers to another school, he must be accounted for until actively enrolled elsewhere. A transfer card thus becomes necessary, one copy of which is sent to the principal of the school to which the pupil intends to go and a second to the superintendent's office, so that proper notation may be made on the permanent school census record, commonly kept in the central office.

Other cards. Admit slips, tardy slips, and the like, can, of course, easily be designed to serve whatever needs arise and to make the system completely effective.

Special records. There will be special records in every school designed to serve purposes which are temporary. Also, there will be records which are permanent; these have not been discussed here. Certain special records, either temporary or permanent, are discussed in other chapters of this book, the forms being presented or suggested in connection with the special activities under development. The forms and procedures for schedule and registration, for example, are dealt with in the chapter on scheduling (Chapter VIII) and forms for guidance are discussed on pages 218 to 220.

CORRESPONDENCE AND INTERVIEWS

Importance of care. Correspondence by letter or note and interviews in person or by telephone are media of contacts as well as purveyors of thought. Correspondence is, in the mind of recipients, representation of the school and not merely the expressions of individual opinion. Every letter or note or telephone call from the school justifies enough care to make it an instrument of good will.

Many letters and telephone calls sent from a school convey the same types of information. Certain significant phrases and sentences of the letters may be standardized.

Telephone calls to the school should be answered courteously. Where refusals to requests are made or messages taken, the manner of doing so well deserves painstaking consideration.

Preparation for corresponding and interviewing. The first impression is often a lasting one. Letters to the school should be answered promptly. The stationery used should be of good quality and of simple yet distinctive design. The name of the school and an unmistakable address are the essentials of a good school letterhead. Long lists of names and titles are not good form; they give the impression that the letter is a medium of advertisement, when it should be the means of conveying a message.

Interviewing, also, deserves careful planning. The purpose of the interview must be kept in mind; the proper subjects should be discussed. All this must be done in a way that places both the interviewer and the person interviewed at ease. Such preparation on the part of the principal is needed as will guarantee the success of any conference.

Clerks and office layout considered elsewhere. Two subjects that might appropriately be considered in a chapter on office standards and procedures, namely, clerical assistants and office layout, are treated elsewhere in this book. The problem of the responsibilities and characteristics of the clerical staff is considered in Chapter XII, which deals with the personnel and organization for administration, while chapters XIII and XIV deal with the problems of layout and other material arrangements for the offices of the school.

NEEDS AND POSSIBILITIES IN THE SMALLER SCHOOLS

Needs in small schools. The discerning administrator of the individual school, no matter what its size, will be able to consider the adaptability of the policies or practices that have been canvassed to the institution of which he has charge. However, there may be some value in reviewing the discussion from the standpoint of differentiation of general policy and practice in schools of small enrollments and with small staffs as compared with schools of average or larger enrollments and staffs.

Because the scope of all activities carried on is more restricted in small schools than in large schools, the office practices to control them are less extensive. This does not mean, however, that the practices are not diverse and often complex. The permanent-record forms can dispense with a few items of information that are significant in larger schools, although, in practice, the records in both small and large schools are not sufficiently comprehensive of all desirable, or even necessary, information. Fewer supplemental forms are required in small schools, as compared with large schools. Filing, both of records and of correspondence, can be restricted to fewer divisions in a small school and is therefore a less complex process.

Possibilities and dangers. It is an interesting fact, in connection with consideration of the complexity of recording and reporting to parents, that the more elaborate forms of appraisal, such as rating forms, behavior journals, and anecdotal records, were not originated in the larger schools and are used more often in schools of moderate, if not small, enrollments. It would seem that the hazards of depersonalization in the larger schools could be somewhat minimized by the procedures involved in these more elaborate records and reports; on the other hand, the sheer magnitude of the task in applying the procedures in large schools may seem prohibitive. The fact that the procedures have been found feasible in schools of moderate enrollments suggests that they might be adopted to a larger extent than at present in many small schools. The smaller enrollments encourage acquaintance with pupils and their work which, after all, is what makes such records and reports possible.

Ordinarily little—sometimes no—clerical assistance is available in small schools. In recent years the dearth of help of this kind has been offset by some help from pupils who are being aided by the National

Youth Administration. The small size of the administrative and instructional staff in the small school is accompanied by a smaller degree of specialization of function, and an accompaniment of this condition is the need for having both principal and teachers share in clerical activity somewhat more than in larger schools. However, both principal and teachers should be on their guard against sacrificing the discharge of some more important function for clerical activities that are not absolutely essential.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. How will a homogeneous classification of office activities serve as a basis for allocating the duties of an office force?
2. What are likely to be the tangible results which issue from the office as a result of (a) having teachers send in monthly reports, (b) requiring pupils to report on a matriculation card the occupation of the father, and (c) gathering health information about each pupil?
3. Explain what is implied by each of the five uses to be made of cumulative individual-record-card information as determined by the Commission on Standard Forms of the Department of Secondary-School Principals.
4. Rate a pupil record card used by some high school of your acquaintance, using the standards and items developed by the Commission on Standard Forms as a model.
5. Suggest a procedure of investigation in arriving at functions of the permanent record and of the items required to serve the functions, which you would regard as more fundamental than the procedure followed by the Commission on Standard Forms.
6. Describe the filing system used in some school. What are its inadequacies?
7. Explain how the reporting and recording of attendance in some high school of your acquaintance may be improved.
8. How, in time, can high-school accounting be made standard and uniform? With respect to what items should standardization be brought about?
9. Make an analysis of all reports required to be made in some high school, indicate which are not used or are used but little, show where needless duplications occur, and decide which of the reports you believe to be fully worth the cost in the time and money taken to make them.
10. Explain how a recording system is or should be related to the educational policy of a school.
11. Investigate the office procedures and organization, including forms used, filing systems and other facilities provided, and personnel doing the work, in a number of small secondary schools, and make recommendations for improvement.
12. Is an office secretary needed in a high school of 200 pupils?

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Chapter XVI

Administering Finance

THE IMPORTANCE OF SCHOOL FINANCE

Educational program conditioned by finance. Problems of finance in high schools have been greatly accentuated in recent years by the rapid popularization of secondary education. A steadily increasing proportion of the school dollar has had to be provided for high-school purposes in districts maintaining both elementary and secondary schools. Furthermore, demands on the part of pupils for services unknown in secondary schools a generation ago have challenged the ingenuity of administrative officers to provide the funds which the new services require. New buildings or the enlargement and remodeling of old structures to meet current needs, the expansion of school sites to provide for new activities, and the acquisition of modern equipment and supplies to make possible the offering of new instructional opportunities have also made heavy demands on the resources of communities throughout the United States. Finding sources of income, planning expenditures to conform to the educational program, and obtaining the greatest return from the funds available have been problems difficult enough to perplex the most astute students of educational finance.

Since in the final analysis the educational program of any school is determined by finance, it should be apparent that the administrative officers in the public secondary schools of the future must be competent in the field of school finance. This competence is all the more important because of the interactions which take place between school and community over questions of finance. The support received by the school depends on the willingness as well as the ability of the community to provide the necessary funds. Conversely, the willingness of the community to support the school depends largely on the confidence it has in the administrative leadership of its school.

Sources of support for secondary schools. The leaders in administration must look to all three levels of government for the support of secondary schools. While the local unit is still the most important source of support, both state and Federal support are increasing in magnitude.

The source of the funds is of importance, since money secured from either state or Federal government must usually be administered in particular ways or according to specialized forms or procedures which regulate its management and determine the method of financial accounting to be observed in the local school system.

In addition to the general educational outlays, the high-school principal has certain other funds to administer. These moneys are made necessary because of certain activities within the individual school and hence are sometimes referred to as "internal" funds. Such funds are used chiefly in connection with extracurriculum activities and auxiliary enterprises, such as the school store and the school cafeteria.

GENERAL EDUCATIONAL FINANCE

Responsibility of the principal. As the administrative officer of one of the basic units of the educational system, the high-school principal is vitally concerned not only with the routine procedures of finance but also with its fundamental social nature. If he is to comprehend fully the part which he himself is to play, he should be able to envision his position in the whole area of educational finance. To do this, he must have a knowledge not only of the general nature of school revenue and expenditure but also of the specific factors which affect his own local situation. He can then discuss financial matters and problems at issue with the board of education, with his superintendent, with the teachers, and with the patrons of his school, and can bring to bear on local problems the judgment and the influence which he is peculiarly equipped to wield.

In the management of his school, the principal usually has an important part in the preparation and administration of the school budget. Table 98 shows the results of an extensive survey of 522 high schools, made in 1929, covering the entire country and including schools of all sizes. It reveals that approximately 70 per cent of all principals responding had budgets to administer, the percentage in the group increasing slightly with the size of the school. While conditions may have changed to some extent in the intervening years, it seems reasonable to assume that principals still wield an important influence in budget administration.

There is a marked variation among individual principals, however, with respect to the degree of authority exercised over budgetary and accounting procedures. The primary basis of this differentiation is in

TABLE 98

NUMBER AND PERCENTAGE OF PRINCIPALS WHO HAVE BUDGETS TO ADMINISTER [1]

ENROLLMENT GROUP	NUMBER	PER CENT
I (4–100)	6	66.7
II (101–200)	17	58.6
III (201–300)	38	69.1
IV (301–500)	53	70.7
V (501–700)	53	73.6
VI (701–1000)	55	63.2
VII (1001–1500)	68	71.6
VIII (1501–2000)	42	73.7
IX (2001–6500)	32	74.4
Total	364	69.7

terms of the organization of the school, that is, whether it is an independent unit (as in a township high-school or union high-school district) or a unit in a city system.

In the independent school, where the principal is in effect the administrative officer of the local board of education, it is his function to assume full charge of financial procedures, concerning himself with the income and expenditure of the district and the routine of budget formulation and administration. In such instances, the principal exercises the same range of activities as does the superintendent in city systems, except that he has no concern with kindergartens or elementary schools.

In a unit school, which is but part of a broader system of control and administration, it is the function of the principal to work with the superintendent in financial matters rather than to exercise such authority directly under the board of education. In such systems, the superintendent is the chief adviser of the board with respect to finance and usually has control over the procedures of making and administering the budget. The principal, then, is responsible to the superintendent, who, as the controlling officer of the system, may call on the principal to share financial responsibilities to the extent desired.

In this respect, as in others, the relationships between the principal and the central office are of a widely varying character. A recent study of such relationships revealed "that the status of the principal in the local school is a reflection of the administrative theory of the central office. If the central office wants the principal to be the intellectual and professional leader of his school, responsibilities will be accorded to the principal commensurate with the influence which the central office desires him to wield. If, on the contrary, the principal is conceived by the central office as a 'super' clerk, he will be weighted with routine responsibilities, deprived of clerical assistance, and regarded only as the titular head of the local school." [1]

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[1] Taken from W. C. Reavis and R. C. Woellner, *Office Practices in Secondary Schools*, p. 218. Chicago: Laidlaw Brothers, Incorporated, 1930.

Aims and purposes of the budget. The two essentials in any system of financial administration are income and expenditure; it is the purpose of the budget to chart in advance the probable character of both aspects in such a fashion that the total ends of the enterprise may best be served. The process of making the budget, then, must consist of three essential parts: (1) the formulation of the program which the schools should undertake; (2) the determination of the amount and character of the funds available, that is, whether the funds are general and may be used for any purpose or whether they are restricted by conditions imposed by their source to some specialized form of education; and (3) the effective interrelationship of these two factors. Once formulated and adopted, the budget then provides a guide for action on the part of its administrators and enables them to gauge their immediate actions according to ultimate ends, thus giving them further experience for an even more refined planning for the following year.

The budgetary process, particularly in so extensive an institution as the public school, becomes exceedingly complex, and it is often difficult for the principal to determine whether the budget which he makes is as satisfactory as it should be. In order to provide some basis for evaluation, Campbell analyzed a large body of literature on budgetary procedure. He concluded that there are six chief criteria of excellence. While these apply to the total budget, and hence go beyond the responsibility of those principals who are in unit systems, the concepts involved should be of value in even the most limited areas of budgetary procedure.

> 1. *Inclusiveness.* The budget presents a complete picture of the financial plan for operating the schools. . . .
> 2. *Balance* (articulation of ends with means). The budget considers the needs of all legitimate activities in the school system in relation to each other and to the organization as a whole; it contemplates the total expenditures for all purposes from the standpoint of the anticipated income. . . .
> 3. *Responsibility.* The budgetary procedure definitely places the responsibility for directing the preparation, the presentation and defense, and the execution

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[1] William C. Reavis, Edward C. Bolmeier, and Wippert A. Stumpf, *Relations of School Principals to the Central Administrative Office in Large Cities*, p. 366. Bulletin 66, Department of Secondary-School Principals of the National Education Association, 1937.

of the budget on the executive head of the school system and the responsibility for its review and adoption on the board of education. . . .

4. *Fiscal Control.* The budget serves as an instrument in controlling income and disbursements. . . .

5. *Flexibility.* In providing for financial control, the budgetary procedure recognizes the possibility of emergencies which necessitate such change from the original financial plan as is compatible with its safeguarding as a whole. . . .

6. *Publicity.* The budgetary procedure includes adequate provisions for informing the public of the proposals contained in the plan for carrying on the school operations; it offers the opportunity of criticism and suggestions to parties interested in the conduct of the schools.[1]

The form of the budget. Since the budget is the blueprint of the financial activities of the school, its form as a document is of marked significance. In the first place, its provisions should be such that they will conform to the criteria just outlined. Further, it should be relatively uniform from year to year, so that it will be possible to have a ready comparability of data. While it is inevitable that the form must change to some extent with the evolving school program, the changes should be made in such a fashion as not to disturb the continuity of the other items. Therefore, if the principal finds that his budget is not in conformity with the best practice and wishes to modify it, he must do so in such a manner that he can still compare the figures of one year with those of the next, even though additional and supplementary figures may be added. He will probably find it necessary to keep his budget in a continuous stage of evolution, but in doing so he should not sacrifice the data which his previous budgets can supply.

One of the most important influences on the form of the local school budget comes from the state statutes regulating such matters. Thirty-five states have more or less elaborate provisions of this sort.[2] The principal, guided in unit systems by the superintendent, must take such requirements into account in building his budget, supplementing and integrating them in terms of his own school program.

Formulation of the budget. Since the budget is such an important aspect of the administration of the school, it is obvious that its preparation is a matter of vital concern to the principal. The essential data which are needed to formulate a budget effectively are so specific that it is best to start the period of preparation considerably in advance of the time when the budget must be presented for adoption. In the broadest sense, budget formulation is a continuous process, since the principal should constantly keep in mind, during the course of the year, what changes are called for and what present emergencies should become the basis for future certainties. His staff will also be making requests from time to time, and he should attempt to encompass these, so far as feasible, in his future budget plans. Nevertheless, the period of definite preparation should not be delayed too long, and it is probably best to have a regular and recurrent time schedule on which to work. On such a time schedule, definite dates may be set for the completion of each of the steps of budgetary procedure.

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[1] Raymond Guy Campbell, *State Supervision and Regulation of Budgetary Procedure in Public School Systems*, pp. 14–18. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

[2] *Ibid.*, p. 100.

In an enterprise so vast as the public-school system, the income and expenditure must necessarily be very large and complex in detail. Accordingly, the budget itself, if it is to be most effective, requires much thought and planning in its preparation and operation, not only from its chief administrator but also from all others concerned with it. It is difficult, if not impossible, for the principal of the school to analyze all the needs of the school without conferring with his staff, each member of which will have something significant to say concerning his own needs and those of the school. This conclusion would seem to be borne out in the experiences of the city of Evansville, Indiana, where a centrally determined budget and supply system was supplanted by one which called forth the efforts of the whole staff. After applying a number of criteria to both systems, Plumb concluded that there could be no doubt that the latter was the better. He could not determine whether the improvement noted was a result of the change in budgetary procedure or of the changed relationship between the business office and the individual schools. Since these were mutually interacting factors, however, he felt that clear placement of credit for the improvement was not important.[1]

In the larger schools, where subjects have become the bases for departments, it is often the practice to allow each department head a budget which he can administer. Reavis and Woellner found this to be the case in 53.3 per cent of the schools in the largest enrollment grouping (2001–6500 pupils) represented in their study.[2] In the larger schools, it is particularly necessary for the principal to confer with his staff in budget-making, since otherwise he cannot secure a realistic picture of his school's needs. In fact, as is shown in Table 99, the amount of such participation increases directly with the size of the school. From the standpoint of democratic school administration, such participation is desirable in schools of all sizes, although the extent will increase with the magnitude and complexity of the program.

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[1] Milton Lyle Plumb, "Improving Budgetary Procedure in the Public Schools of Evansville, Indiana," p. 180. Unpublished Master's thesis, Department of Education, University of Chicago, 1933.

[2] *Op. cit.*, p. 225.

TABLE 99

Number and Percentage of Budgets Prepared on the Basis of Estimates of Teachers for Equipment and Supplies[1]

Enrollment Group	Number	Per Cent
I (4–100)	2	22.2
II (101–200)	10	34.5
III (201–300)	22	40.0
IV (301–500)	44	58.7
V (501–700)	40	55.6
VI (701–1000)	52	59.8
VII (1001–1500)	57	60.0
VIII (1501–2000)	35	61.4
IX (2001–6500)	30	69.8
Total	292	55.9

Perhaps the most important single function of the principal in the process of budget making lies in the area of unit-cost studies. A recent comprehensive summary of the literature with respect to the budget concludes that "Students in the field appear to be in general agreement that budget amounts should be based on the educational program, and determined upon the basis of unit costs. Specific data which should be available for making estimates include: total and school population, probable enrollment increases, pupil-teacher ratios to be maintained, equipment and supply quotas, salary schedules, facts as to economic and social conditions and trends, the financial ability of the district, and receipts and expenditures of preceding years."[2]

In those systems in which the high-school principal is the administrative officer of the board, as in township or union-high-school districts, it will be his duty to secure all such relevant items in the preparation of the budget. In unit systems, it will be his function to do his share in securing them for the whole community and, in particular, in making such studies of his own school as will provide data comparable with those of other schools in the system and elsewhere. In addition to aiding him to make his budget effective, a system of unit-cost studies will be of

[1] Taken from Reavis and Woellner, *op. cit.*, p. 228.

[2] W. W. Theisen and Reuben P. Heuer, "Budgetary Procedure," *Review of Educational Research*, VIII (April, 1938), 136.

value to the principal in helping him to understand his school, in providing irrefutable evidence of needs, and, by comparison with similar information for other schools, in suggesting places where economies may be effected. It will indicate whether the essentials or the nonessentials are being stressed and will form the basis of answer for public inquiries concerning school expenditures.

One of the most flexible and productive measures of educational finance is the per-pupil cost. This can be readily calculated for the school as a whole or, depending on the completeness of the accounting procedure, for various items or groups of items which involve expenditure. Thus in the per-pupil cost the principal has at hand a type of index figure of the cost of administration in his school or, even more narrowly, of the cost of administrative salaries or office supplies. This particular index of cost will help him, in the first instance, by providing a unit by which he may gauge roughly the increased or decreased expenditures for particular budget items in terms of an increase or decrease in the number of pupils in his school. A second advantage of this measure is that it permits comparison between schools, even those of widely varying sizes, although, of course, in the more elaborate analyses, the smaller schools will usually have fewer items. Since this particular index lends itself so readily to comparability, it is of particular value in achieving the advantages just enumerated for cost indices in general.

The utility of the per-pupil cost as an index of expenditures by showing comparable data for five high schools of widely varying size is suggested by the evidence in Table 100. In securing these figures, the principal of each school divided total expenditures in his school for the year into a group of significant items affecting all pupils and then divided each amount by the total number of such pupils enrolled. The principal of each of these schools has prepared figures which will furnish him a ready method of calculating probable costs for the coming year and by which he can examine into the distribution of the funds expended by his school in order to determine whether or not the expenditures are equitable.

It is readily apparent from an examination of Table 100 that, with the single exception of School A, which is a rather small school, size of enrollment does not seem to be a markedly significant factor in the per-pupil cost in the schools studied. The figures fluctuate considerably from school to school, and neither increase nor decrease uniformly. This irregular variation even among schools of the same size is also

TABLE 100

ANALYSIS OF TOTAL PER-PUPIL EXPENDITURES IN FIVE SCHOOLS OF WIDELY VARYING ENROLLMENT FOR THE YEAR 1934–35 [1]

BUDGET ITEMS	PER-PUPIL EXPENDITURES				
	School A	School B	School C	School D	School E
Enrollment	235	934	1615	3558	6508
Administration	$26.11	$ 7.02	$ 9.41	$ 9.62	$ 7.56
Instruction	74.54	50.36	52.96	78.05	76.31
Auxiliary Service to Pupils (net)	12.57	10.59	.68	5.84	1.11
Operation of Plant	24.75	3.76	15.68	17.60	7.80
Maintenance of Plant	4.96	.70	.58	2.43	3.66
Fixed Charges	11.36	—	1.12	.59	1.71
Total Current Expenses	$154.29	$72.43	$80.43	$114.13	$98.15
Debt Service	—	—	$30.68	$30.40	$30.30
Capital Outlay	$3.96	$ .06	.75	.95	—
Total Costs	$158.25	$72.49	$111.86	$145.48	$128.45

clearly shown by the data presented in Table 101. The unit costs there presented for identical items vary to a considerable degree, the total administrative expense and the individual items concerned being approximately twice as much in School G as they are in School I. It seems probable that School G also has a high expenditure in other items than administration, since its total expenditures are appreciably higher than those of the other school. The principal of School G may justify his increased expenditures on the ground that he is furnishing additional

TABLE 101

ANALYSIS OF PER-PUPIL EXPENDITURES FOR ADMINISTRATION IN FIVE SCHOOLS OF APPROXIMATELY THE SAME ENROLLMENT FOR THE YEAR 1934–35 [1]

BUDGET ITEMS	PER-PUPIL EXPENDITURES				
	School F	School G	School H	School I	School J *
Enrollment	1270	1310	1433	1542	1615
Salaries	$10.25	$12.87	$7.64	$7.24	$8.60
Supplies	.57	.96	.24	.16	.63
Legal Services	.15	.93	—	—	.18
Reports, Bulletins, etc.	—	.12	—	—	—
Traveling Expenses	.12	.07	—	.02	—
Miscellaneous	—	.10	—	—	—
Total Administration	$11.09	$15.05	$7.88	$7.42	$9.41
Total Current Expenditures of School	$94.13	$120.61	$76.10	$86.95	$80.43

* School J is the same as School C in Table 100.

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[1] William C. Reavis, unpublished material, October, 1935.

services, but if he is wise he will examine the offerings of his school closely to make sure that his contention is correct and that he is not overspending.

Another interesting situation, and perhaps more frequently found, may be seen by comparing the expenditures for supplies of schools H, I, and J. Here are three schools the total current expenditures of which are roughly the same. Yet for the item of administrative supplies, School J spends three times as much as either of the other two schools. The principal of this school thus has a warning sign that this particular item is perhaps not being efficiently and economically administered in his school. It is possible that the school he heads has provided expanded services which call for an increased expenditure, but he should make sure that this is indeed the case and that the additional cost is justifiable.[1]

Attention should be called to the bases of analysis used in tables 100 and 101. It will be seen that Table 101 has a narrower classification than Table 100, since it takes the item "administration" and subjects it to further analysis. Even more refined analysis can, of course, be made. For instance, the item "salaries" might be still further divided so as to show the principal's salary, the total salary of the clerical staff, and other administrative salaries. Similarly, the item "supplies" could be analyzed to show the cost of each item used. It is a matter of the principal's discretion as to how far he will wish to carry this sort of cost analysis. In smaller schools, the subdivision need not be so refined as it is in the larger schools. To some extent, too, the degree of analysis must depend on the flexibility of the budget and accounting forms, since they furnish the essential data for the analyses. In any school, however, it is well to analyze costs as comprehensively as possible, since only in this way can the principal build up and understand the larger and more general groupings of expenditures. Also, such detailed studies will furnish the principal with more effective instruments by which to plan and control future expenditures.

In making the budget it is too much to expect that the schedule of desirable expenditures will always be exactly balanced by the forecast of probable receipts. Usually a period of adjustment is necessary before the budget is in final form and ready for presentation to the board for adoption. It is during this period that most of the disagreement with respect to the budget is likely to arise. The shifting of items must depend on the individual circumstances, so that little counsel can here be given as to procedures. The principal should, however, have a clear idea as to which items of expenditure are most essential and which may be curtailed or dispensed with readily. He should also be sure that his school is furnishing its essential services on the most economical basis and that he is not depriving the pupils of supplementary facilities because of wasteful practices in the activities which are being carried on.

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[1] A further discussion concerning per-pupil cost analyses as a method of effecting economies will be found in William C. Reavis's "Improvement and Economy in Secondary-School Administration," Bulletin 45, Proceedings of the Department of Secondary-School Principals (1933), pp. 35–45.

When the budget is finally formulated and has been approved by the board, it is customary for it to be printed and made available for distribution to all interested parties. In smaller districts, publication of the essential facts in the local newspaper may serve this purpose equally well. The people who support the school have a right to know the nature of the expenditures, and if they read and understand the budget, they will usually be better informed concerning the school and more favorably disposed toward support of the school.

Operation of the budget. Once the budget has been prepared, considered, and finally adopted, it becomes the basis for the financial operation of the school during the period of its application. The budget and the accounting system must be mutually interrelated, each being formulated in terms of the other. In this way, the budget can serve as the financial plan guiding the individual accounting operations which, in turn, provide the basis for the formulation of the budget for the ensuing year. Likewise, if the full benefits derived from detailed cost analyses are to be made available for future use, it is essential that full accounting take place for all funds.

The procedures of accounting and financial administration should be standardized and uniform. A set of forms should be evolved, adequate to handle most of the customary situations which arise and yet simple and self-explanatory. The channels through which the forms must pass should be definitely and clearly established in such a manner that transactions will become routine in character, thus requiring as little special attention as possible. In this way, accounting procedures may be so simplified as to be used in a routine fashion by any person concerned, while providing a basis of comparability and of uniformity which will facilitate auditing and later use of the figures involved.

An important matter in the administration of school finance is the time at which requests for requisitions on the budget may be submitted to the principal. In the smaller schools, it is probably satisfactory, because of fewness of such requests, for them to be made at any time needs arise. In the larger schools, however, the process of submittal should be systematized in order to conform to the best administrative practice. In a study of a large number of high schools, it was found that 77.8 per cent of the schools with enrollments under 100 permitted requests for requisitions at any time, whereas this practice was followed by only 39.5 per cent of the schools with enrollments from 2000 to 6500. Conversely, the percentage of schools specifying definite periods for requests to be made increased with the size of the enrollment grouping.[1]

In view of the obvious advantages of having requests for requisitions submitted in written form, it is surprising to note that, in the study just cited, 17 per cent of the principals allowed oral requests to be made. Considerable overlapping of procedures was discovered, 62 per cent of the principals requiring requests to be presented on printed forms and 76 per cent accepting requests in writing but with no form prescribed. The proportion allowing oral requests is greater among the smaller schools than among the larger.[2] Once the requests have been approved by the principal, the requisitions are customarily prepared by clerical assistants, the frequency of this practice increasing with the prevalence of clerical service.[3]

In those schools which have departmental heads, it is frequently the custom for the principal to delegate to such persons the power of issuing requisitions for their own departments. In the schools studied by Reavis and Woellner, this practice was followed by 41.6 per cent of the schools, the percentage rising from 22.2 in schools with enrollments under 100 to 86.0 in schools with enrollments from 2000 to 6500.[4]

The principal or the persons to whom he delegates the responsibility of making requisitions should always ascertain whether the items and amounts involved conform with the budget and can safely be taken care of within the limits of unspent balances. In order to do this, he must not only keep the budgetary provisions in mind but must also have up-to-date information as to the amounts remaining in each of the budget categories. Where the principal is the chief budgetary officer for the school district, he will have this information at his disposal, provided his accounting procedures are adequate; but the principal in city systems must either keep a set of books for his own school or secure periodic reports from the central administrative office. In some systems, budget information is provided periodically by bulletins from the superintendent's office. Where this practice is followed, the information thus received will ordinarily be sufficient. Where the practice just described is in use, the principal, in order to have current information regarding his budget, may find it necessary to set up a system of memorandum accounts in his own office. While it is not necessary, particularly in larger systems, to have constant recourse to such accounts in approving each requisition, however small, it is essential that the principal have at all times a clear idea of the general trend of expenditures in relation to the balances available.

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[1] Reavis and Woellner, *op. cit.*, pp. 220–221.

[2] Calculated from figures presented by Reavis and Woellner, *ibid.*, pp. 220–222.

[3] *Ibid.*, pp. 223–224.

[4] *Ibid.*, p. 226.

In the operation of any budget, no matter how carefully and scientifically prepared, circumstances change and emergencies arise which, since they could not be foreseen, were not provided for in the schedule of receipts and expenditures. It is for such contingencies that emergency funds are usually provided and that arrangements are sometimes allowed whereby funds may be transferred from one account to another. Such devices are to be regarded as extreme measures, however, and should be used as such. The report of the study previously cited had the following to say concerning practices in meeting emergencies:

> Data . . . show that 141, or 27 per cent, of the 522 boards of education regard the items of the budget as fixed and not subject to transfer. This should impress upon principals the necessity of observing the most careful practices in budget administration. While it is true that some purchases not provided for in the budget may be made from the emergency item usually incorporated in budgets, the principal cannot justify requisitions on the emergency fund unless the needs were clearly impossible to anticipate at the time the budget was made. The further fact that 49 of the 522 boards of education provide no item for meeting emergency issues presents support for the warning given. Although 342, or 65.5 per cent, of the budgets include emergency items which permit purchases not provided for, and 286, or 54.8 per cent, of the boards of education sanction the transfer of funds from one item to another, the principal who would ask for approval of requisitions under such provisions, except in cases of real emergency, would be unwise indeed.[1]

FINANCING EXTRACURRICULUM ACTIVITIES

Responsibility of the principal. Among the funds which exist within the school itself, those having to do with extracurriculum activities are probably at once the largest and the most complex in management. Extracurriculum activities are so diverse in form and nature and their growth has been so rapid that, in many schools, they constitute a perplexing problem in administration, among the most important aspects of which is the matter of their finances. Here the dual factors of efficiency and educational importance must be considered. The activities are in the school system because of their educational value, and this should be enhanced wherever possible not only by giving pupils experience in the handling of financial matters but also by furnishing them an example of effectiveness and efficiency in this respect. Extracurriculum finance entails a certain amount of centralization of administrative control together with the standardizing of administrative procedures. Some schools have developed fairly successful methods in administering extracurriculum finance, but in most high schools the plans seem to be in an evolutionary stage, varying widely with the nature of the program as well as with other factors.

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[1] *Ibid.*, pp. 218–219.

The raising of funds. A recent inquiry responded to by 72 principals of secondary schools of all types in all regions of the country provides much valuable information with respect to the financial administration of extracurriculum activities.[1] The procedures carried on in some schools are of the most approved and highly developed sort; in other schools, apparently little or no attention has been given to this problem, with the result that unsatisfactory practices are followed.

The methods which were reported as being used in securing financial support for general extracurriculum activities in the schools represented are revealed in Table 102. It is evident from the data that the practices are still largely confined to the individual activities and, even there, to more or less expedient and random devices. Despite the recommendation, oft-repeated in recent years, that there should be a single fee which would provide the basis of support for all activities, only 22 institutions, or 31 per cent of the entire number, now use this means of raising funds. Similarly, it will be seen that only 11 schools receive funds of any sort from the board of education, despite the frequent recommendation that such should be the case. It is evident that funds derived from the diverse sources reported would offer many problems of administration.

A separate inquiry made with respect to intramural athletics reveals that support by the board of education is a most important factor, being reported by 45 of the 72 schools. Other sources of support are similar to those reported for general activities in Table 102. The sources of funds for interscholastic athletics are also much the same, the season-ticket

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[1] The figures reported in this section are taken from an unpublished study compiled by W. C. Reavis in December, 1937.

TABLE 102

PRACTICES EMPLOYED IN 72 SCHOOLS TO SECURE FINANCIAL SUPPORT FOR EXTRACURRICULUM ACTIVITIES

PRACTICES EMPLOYED	NUMBER OF SCHOOLS
Proceeds from club enterprises (as, sale of publications, tickets for performances, etc.)	60
Regular dues from members	38
Proceeds from special sales (candy, rummage, etc.)	35
General fund raised for all extracurriculum activities	22
Assessments on members whenever money is needed	18
Receipts from cafeteria, school store, etc.	13
Funds from board of education	11
Each member pays his own expenses when necessary	10
Outside contributions and donations	7
Voluntary contributions from members	4
Combinations of above and other sources	16

and individual-ticket sales being most important. Careful cost analysis would in all probability reveal that the board of education should be credited with a larger share of support than is indicated in Table 102. The board, of course, pays for the time spent in supervision by the principal and faculty sponsors, provides facilities for activities, and in other ways difficult to calculate supports the extracurriculum program.

Table 102 also reveals the fact that regular and special assessments of fees by individual organizations are among the most frequent sources of funds for extracurriculum activities. Among the schools which use this method, 25 have informal collection at opportune times, while 23 have formal notification and collection on a specified day and 16 adopt and follow a definite financial program. Miscellaneous practices are followed by 7 other institutions. In 40 schools, an officer of each organization concerned has the responsibility for collecting dues and assessments; while in 36 schools, this function is discharged by the organization sponsor; and in 18 other institutions, by the principal, the school treasurer, or some other designated person. In some schools, this responsibility is divided between two persons or more. In view of the misunderstandings likely to arise when members of the school faculty collect money, it is surprising that the practice is followed so frequently.

A general fund for activities, obtained either by a single comprehensive fee or by the pooling of income derived from several sources, covering all or a large range of the activities authorized, has received much favorable discussion in recent years in the literature of secondary education. This practice is not widespread, however, so far as the group of schools under consideration is concerned. In schools in which such a fund exists, it is apparently derived from a wide range of sources, the individual schools using several or many methods. Figures indicating the sources of this fund are shown in Table 103. The sources are almost as varied as are the methods of financing extracurriculum activities in the schools, reported in Table 102.

TABLE 103

METHODS OF RAISING MONEY FOR GENERAL ACTIVITIES FUND IN 22 SCHOOLS MAINTAINING SUCH A FUND

METHODS OF RAISING MONEY	NUMBER OF SCHOOLS
Sale of one general activities ticket	22
Proceeds from enterprises, such as plays, parties, and other entertainments	21
Percentage of receipts from all organizations	7
Funds from board of education	5
Receipts from special projects, such as cafeteria, school store, etc.	4
Regular or special drives or sales	3
Other sources	7

The raising of funds for the support of extracurriculum activities can, and often does, create serious problems in school management, if allowed to get out of hand. The competition for funds may become vicious and create serious differences between organizations. The resulting experience of pupils participating in the activities may thus be anything but beneficial. The general fund for activities eliminates to some extent the weakness indicated by rendering drives for funds less restricted in nature. However, if the fund is not carefully administered, the competition among organizations for their share of the general fund may become so pronounced as seriously to hamper the effectiveness of the general fund.

The administration of funds. The most serious problems in connection with extracurriculum activities pertain to the administration of funds. It is as essential that good business methods be used in extracurriculum finance as with any other school funds, particularly since it is in extracurriculum affairs that most pupils secure their first experience in public finance.

The customary practice found in the schools studied was to have a general treasurer within the school administer the extracurriculum funds. This practice was found in 44 of the 72 schools. The principal administered the funds in 27 schools, while the treasurers of the different organizations performed this function in 13 schools. In 27 schools, the funds were reported as being administered by some other person or group of persons. Inasmuch as there were only 72 schools reporting, it is apparent that considerable overlapping of responsibility exists in some of the schools. Special inquiries made with respect to the financing of intramural and interscholastic athletics revealed that approximately the same situation holds true in these two fields, although both are almost exclusively under faculty control.

The National Survey of Secondary Education pointed out the weaknesses inherent in having the principal act as the treasurer for the extracurriculum activity funds, a practice commonly found only in the smaller schools. The survey further concluded that the best practice is to have a general treasurer rather than to have complete autonomy for each activity.[1]

Usually some member of the school staff is asked to assume the responsibilities of general treasurer, his other duties sometimes being lightened for this purpose. It was found, in the study here chiefly drawn upon, that in those schools in which there is a general treasurer of all activities, this position is held by the head of the commercial department in 27 schools, by the school clerk in 15 schools, by some faculty member not in the commercial department in 8 schools, and by the treasurer of the student-government organization in 5 schools. In 17 schools, some other official or some combination of officials is used.

A further indication of failure to follow good business practice is the fact that 44 schools reported that the person who administers the extracurriculum funds is not under bond. Twenty-four schools require a bond of the treasurer, 2 schools require two signatures on checks in lieu of a bond for the officials concerned, and 2 other schools failed to indicate their practice. It seems likely that the failure to require bonds is in part due to the lack of centralization of responsibility for the administration of the funds.

Only 45 of the schools reported that the annual expenditures for general extracurriculum activities were made on a budget plan, 6 reported a partial budgetary plan, and 21 reported operating without a budget. Eighteen schools reported that no budget was made for intramural athletics, and 12 schools reported that they did not have a budget for interscholastic athletics. The failure on the part of a considerable number of the schools to plan their income and expenditures is understandable in view of the diversity of procedures for collecting extracurriculum funds and the lack of centralization of administration.

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[1] William C. Reavis and George E. Van Dyke, *Nonathletic Extracurriculum Activities*, p. 50. National Survey of Secondary Education, Monograph No. 26, 1933.

The various procedures of accounting used in the schools studied are presented in Table 104. This table indicates that an appreciable number of the schools surveyed followed practices of accepted business standing in accounting for their extracurriculum activity funds. Negatively, however, it is apparent that a number of the schools are not following such practices. Once again this is probably due largely to the lack of centralized administration for such funds in many schools.

TABLE 104

SYSTEMS OF ACCOUNTING USED IN 72 SCHOOLS IN ADMINISTERING THE FUNDS OF EXTRACURRICULUM ACTIVITIES

PROCEDURES USED	NUMBER OF SCHOOLS
(a) Cash journal kept by central treasurer	48
(b) Ledger regularly posted	58
(1) One page for each organization	59
(2) One page for each account (merchant) dealt with	1
(c) Duplicate receipt book kept	39
(d) Requisitions kept in duplicate or triplicate	34
(1) Specifications of goods ordered written in	30
(2) Space for signature of responsible parties	29
(3) One copy to treasurer, one to merchant, one to organization	23
(e) Voucher checks for all disbursements	48
(1) Specifications for goods to be purchased written in	18
(2) Signature of all responsible parties	23
(f) Ticket report made whenever necessary	37
(g) Additional procedures reported:	
(1) Treasurer gives principal financial report each month	1
(2) Machine bookkeeping	1
(3) Ticket report made on conclusion of each activity or performance	1

Almost all the schools (67) keep their extracurriculum funds in a specified local bank, only 3 keeping the funds in the school vault and only 1 allowing them to be managed by the treasurer of each organization. One school failed to specify how the funds are managed.

Expenditures are customarily authorized by the approval of the sponsor (54 schools), the principal (42 schools), a vote of the membership of the activity (19 schools), the director of extracurriculum activities (3 schools), and other persons or methods (19 schools). Obviously, a number of schools have several methods by which the expenditure of funds may be authorized, another example of the prevalent lack of centralization of administration of such funds. Fifty-seven schools definitely limit the amount of money which may be spent by any one organization or activity, while 11 schools have no such limitation, and the remainder have provisional requirements.

In the event of a deficit in the treasury of any activity, 20 schools allow funds to be transferred from some other activity and 48 do not; 8 schools qualified their answers in some respect. If such a transfer is allowed either as a regular practice or in special instances, it must invariably be authorized by a faculty member, the principal being most frequently charged with this duty in the schools studied. Where there is a surplus, it is generally used by the organization itself in either the current or the subsequent year.

Fifty-one of the institutions studied reported that an annual audit of the accounts of the individual organizations and their officers is required; 16 reported that no such audit is made. With respect to interscholastic funds, however, periodic audits are made in 64 schools and are not made in 6 schools. It is encouraging to note that an audit of some sort is the accepted practice in the large majority of the schools; as a requisite of good financial management, the practice should be universal.

It must be concluded from the various facts presented that the administration of the finances of extracurriculum activities could be markedly improved in many schools. This general impression as to a lack of efficient financial procedures is borne out by another study of extracurriculum activities,[1] in which the author found difficulty in securing accurate financial records and concluded that there was "an indication of bad business management" and that the senior high schools had "failed to take advantage of the educational opportunities that student finance provides." In a similar study of high-school clubs, Byerly concluded that "an analysis of the data shows a lack of good business practices in methods of determining and making disbursements." [2]

It is significant that of the 70 schools responding to the question in the study here chiefly drawn upon, only 3 had discovered any irregularities in the collection, disbursement, or administration of the funds of extracurriculum activities during the five-year period preceding the inquiry. The small number of irregularities discovered might be taken as an indication of the satisfactory nature of present practices were it not for the fact that, in many schools, the failure to audit accounts and the lack of centralized administrative procedures would make detection of misappropriations difficult. In schools of this type, also, the failure to provide satisfactory educational experience and an example of efficient procedures to pupils might well be regarded as a more fundamental deficiency.

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[1] Harry R. Shepherd, "A Survey of Extra-Curricular Activities in the Senior High Schools of Kansas City, Missouri," pp. 87, 98. Unpublished Master's thesis, Department of Education, University of Chicago, 1929.

[2] Cary C. Byerly, "Intramural Extra-Curricular Activities in the Seven High Schools of the West Suburban Conference," p. 48. Unpublished Master's thesis, Department of Education, University of Chicago, 1934.

Special problems in the financing of interscholastic athletics. The most expensive type of extracurriculum activities is interscholastic athletics. The cost of such activities results from the necessity of providing special coaching, special equipment, travel expenses, and medical services. The tendency at present is for most boards of education to provide the coaching and some, if not all, of the equipment. The other expenses must be met out of income derived from gate or door receipts. This method of financing interscholastic athletics partly out of regular school funds and partly out of receipts compels the head of a high school to assume large responsibility for interscholastic finance. The burden of the responsibility is so great in many schools that all the money-raising energy of principal, faculty, and student body must be directed during the school term to a single end, namely, the meeting of the deficit of interscholastic athletics.

The problem just pointed out is fully supported by the data collected by the National Survey of Secondary Education [1] from 327 secondary schools reported as doing promising work in athletics. These schools were interrogated as to the source or sources of income from which they derived their main support. The answers to the inquiry are presented in Table 105, which is an adaptation of Table 15, page 119. Here it is seen that the main sources of support for interscholastic athletics are the sale of tickets to students (84.4 per cent of the schools) and the pooling of funds derived from all extracurriculum activities (19.9 per cent of the schools). Funds are provided by local boards of education in only 9.8 per cent of the 327 schools. Other means of raising funds relied on less heavily are: plays, entertainments, and special efforts; athletic association membership fees; donations; student council, student union, and student body fees; and the like.

In the light of the practices that must be resorted to by the secondary schools to raise funds for the support of athletics, "It is not surprising," says the report of the Survey, "that in a large number of schools considerable attention is given to the development of formidable teams, so

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[1] P. Roy Brammell, *Intramural and Interscholastic Athletics*, pp. 81–89. National Survey of Secondary Education, Monograph No. 27, 1933.

TABLE 105

Percentages of Schools Using Different Practices in Raising Funds for the Support of Interscholastic Athletics

Practices	Percentages
Ticket sales	84.4
Pool of funds derived from all extracurriculum activities	19.9
Board of education	9.8
Plays, entertainments, and special efforts	4.9
Athletic association membership fees	4.3
Student council, student union, and student body fees	3.7
Donations	1.5
General organization dues	0.6
Assessing home rooms	0.3
Candy sales	0.3
Department of physical education	0.3
Profits from magazine subscriptions	0.3

that large numbers of persons will become sufficiently interested in the competitions to pay the price of admission." [1] The obligation to please the public to secure support tends to subordinate the control of athletics to finance. Principals, therefore, are confronted not only with the problem of financing interscholastic athletics but also with the problem of shaping their policies of control in the light of the solution of the problem of finance.

MISCELLANEOUS FINANCIAL ACTIVITIES

Responsibility of the principal. Within the high school there are often one or more enterprises, in addition to those already considered, whose management involves a certain amount of financial administration. Among these, the most prevalent are the school store and the school cafeteria. If he has the responsibility for managing these enterprises, the principal is obligated to handle the funds in the most efficient manner possible, treating each as a separate enterprise and making sure that funds are handled according to standard financial practices.

The school store. The recent study by Funkhouser [2] of the school stores in 29 secondary schools in Illinois, considered in Chapter XIV, revealed that most principals look upon the school store at once as a convenience and an economy to the pupils, the first being unanimously

[1] *Loc. cit.*

[2] O. W. Funkhouser, "School Stores and Selling Practices in Secondary Schools." Unpublished Master's thesis, Department of Education, University of Chicago, 1935, pp. 9–26.

given as a reason for maintaining the store by the principals interviewed and the second being given by all but one. Additional purposes mentioned were to standardize supplies (16 schools) and to force out satellite stores (1 school). The principal of only one school among those surveyed regarded the school store as a money-making agency. Thirteen schools reported a small profit, 4 schools a small loss, and 11 neither profit nor loss. Where there is profit or loss, it is customary to carry over the amount concerned to the following year, profits sometimes being used to build up capital.

Although the school store sometimes develops into a project of considerable magnitude when its sales are large, it does not ordinarily constitute a serious problem in financial management for the principal. However, the enterprise is given attention again for the reason that, since funds are handled through the school store, the possibility of maladministration exists unless a sound system of financial management is adopted. As generally conducted, the school store is a self-contained activity in which centralization and uniformity of business procedures are readily attained. Therefore it should not be difficult to administer its finances on a systematic and efficient basis.

The school cafeteria. Because it is usually a much more pretentious enterprise than the school store, the cafeteria ordinarily creates greater problems of management. Coupled with this, also, is the fact that discerning principals realize that the administration of the cafeteria cannot exactly approximate that of a private business concern but rather should provide educational experience for pupils in the matter of wholesome diet, home economics, and other fields. This fact, however, supports the contention with respect to efficient management procedures, since without such management the experiences secured by the pupils might be detrimental rather than valuable.

A recent study of 25 cafeterias in Middle Western schools [1] revealed the fact that the average yearly amount handled by each was $15,541.57, the maximum amount being approximately $30,000.00 in each of 4 schools. The cafeterias are not operated on a money-making basis; however, all but 4 of the schools studied had accumulated surpluses during the year, the mean surplus being $817.22. One school had a deficit, and 3 schools came through the year without surplus or deficit. It was found, however, that often the surplus was more apparent than real. In some schools, such cafeteria expenses as janitorial or supervisory services are charged to other accounts in the school, thus materially increasing the apparent surplus item. Also, the surplus often depends to a marked degree on the sale of large-profit items, such as candy, a feature which may readily be exploited. The surplus is customarily used for replacements or new equipment, this being the practice in 16 schools. Occasional methods of disposal were: turning the surplus into the cafeteria fund of the city school system, lowering prices the following year, providing charity lunches, and financing other school activities.

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[1] Joseph B. Stephens, "The Administration of the Cafeteria in High Schools of from 375 to 3000 Pupils." Unpublished Master's thesis, Department of Education, University of Chicago, 1932.

The school cafeteria is ordinarily not managed directly by the principal but by a person particularly engaged for that purpose or by the department of home economics. Such a person customarily has direct charge of the financial affairs of the cafeteria, but the principal, of course, has the ultimate responsibility. Because of the nature of the cafeteria as a more or less separate enterprise, he should endeavor to view its financial affairs as such, charging against it all items of expense which it incurs. While it should pay its own way, regular surpluses, above the amount necessary for replacement of equipment, should not be permitted. Also, while the management of the cafeteria should provide educational experiences, pupil assistance should not be exploited in such a manner that work of a repetitive, routine, noneducative nature is allowed.

Other miscellaneous activities. High schools naturally vary greatly in the miscellaneous activities administrative officers are called on to finance independent of support from their boards of education. For example, one school, in order to have a successful orchestra and band, is compelled to organize an association to raise funds for the purchase of instruments and music. The promotion of the organization, the projection of schemes to raise money, the purchase of instruments, and the protection of the property after it is secured fall largely on the administrative head of the school. In other schools, the principal, in order to have certain improvements desired by the school and the community, may have to assume responsibility for the raising of the necessary funds. The improvement may be the installation of a lighting system for night football, a rental system of textbooks, a pipe organ for the auditorium, the landscaping of the school site, or underwriting the cost of a lyceum course.

The success of the principal as an administrator of finance will depend largely on the support received from individual citizens and organizations in the community. Any money raised through pupils must come chiefly from producing adult citizens. Therefore, on the extent to which the principal can make articulate to pupils and parents the needs of the school for services the board of education is unable to supply will rest his success in securing funds for the needed school improvements. Obviously, the principal must have the confidence and trust of his student body, teachers, and community to be successful in raising the supplementary funds needed by schools of the type here considered.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. In your school system, or in some school system of your acquaintance, who is the individual primarily responsible for the formulation of the budget? List all the functionaries who should co-operate with this individual in making and administering the budget.
2. Evaluate the budget for your school, or for some school of your acquaintance, in terms of the criteria suggested by Campbell, as quoted in the chapter.
3. Make a per-pupil cost analysis for the major groups of expenditures of the past years in your school or in some school of your acquaintance. Compare this (a) with the cost indices presented in Table 100, page 613, and (b) with similar cost indices in your own school, or a school of your acquaintance, during a previous year.
4. Compare the budget items and accounting forms used in your school, or in some school of your acquaintance, to show how effectively they are interrelated.
5. Prepare a tentative time schedule for the making of the budget in your own or some other school, being sure to allow sufficient time for the participation of all those who should be concerned.
6. Canvass the sources from which extracurriculum funds are derived in the school with which you are connected or in some other school. Compare the practices found with those of the outstanding secondary schools studied in the National Survey of Secondary Education.
7. Suggest ways by which the administration of extracurriculum activities might be more effectively centralized in your school or in some school of your acquaintance.
8. Check against the list found in Table 104, page 622, the accounting procedures used for extracurriculum activities in your school or in some school of your acquaintance.
9. Suggest ways by which the store or cafeteria in your school, or in some school of your acquaintance, might be made to serve a more effective educational function.

10. List the advantages and disadvantages of a single activity fee for the support of all activities (a) in a small secondary school; (b) in a medium-sized secondary school; (c) in a large secondary school.
11. Make case studies of several selected schools to ascertain how all financial matters are administered.
12. Secure the budgets of several schools and compare the appropriations for the various services item by item, with a view to making constructive suggestions for improvements.
13. Investigate the practices in a group of cities of comparable size with respect to the responsibilities of high-school principals in the preparation and administration of the annual budget.
14. Select a number of representative high schools and try to ascertain their practices with respect to the raising of money for the support of extra-curriculum activities.
15. If possible, secure permission to visit some high school that has the reputation of having developed innovative practices in the financing of extra-curriculum activities and ascertain the respects in which these practices differ from those found in other high schools of your acquaintance.
16. Make a study of unit costs in your school, or some school of your acquaintance, with a view to pointing out the questions which should be answered in defending the budget of this school.
17. Analyze the printed rules and regulations of the boards of education in a number of city school systems of comparable size to ascertain the responsibilities of principals and teachers for the making and administration of the budget for local schools.
18. What budget problems have resulted in conflict between local school officers and citizens and have been carried to the courts for judicial decisions?
19. Prepare a check list of questions for submission to principals of high schools with a view to ascertaining the practices pertaining to bonds for members of the staff who are charged with the custody of school funds.
20. Prepare a list of questions on budgeting and budget procedures for submission to high-school teachers for the purpose of identifying issues which should be made topics for discussion at faculty meetings.

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Chapter XVII

Secondary School and Community

THE SCOPE OF COMMUNITY RELATIONS

Desirability of systematic consideration of community relations. Wherever appropriate in the special concerns of other chapters of this book, important relations of the secondary school and the community of its location have been treated. For example, in the chapter on vocational education, the dependence of the school on industrial and commercial organizations of the locality in the development of part-time co-operative programs was indicated; in the chapter on office practices, new types of reports on pupils to parents are described; in the final section on correspondence and interviews in the same chapter, it was pointed out that all messages to parents should be instruments of good will. In other portions of the book, where the desirable relationships are obvious without elaboration, efforts at the maintenance of such relationships have been assumed.

Notwithstanding previous discussion or assumption, some systematic consideration of the whole problem seems desirable, both for the sake of emphasis and for the purpose of directing attention to something like the full scope and significance of these relationships.

Scope and nature suggested in innovating practices. A feature regularly appearing in the magazine *School Review* reports items of practice which are suggestive of the scope and nature of desirable relationships of secondary school and community. The feature is called "Here and There among the High Schools," and in it from month to month there are described innovations in schools throughout the country. The innovations pertain to many aspects of secondary-school keeping, such as curriculum and instruction, the extracurriculum, supervision, guidance, and administration. It is significant for purposes here that a large proportion of innovations voluntarily reported by principals in recent years involve relationships with the community. In point of fact, well over 50 out of a total of something more than 200 innovations—a full fourth of all—described in about three years of consecutive issues of the *School Review* involved community relationships. The current period must be one of increasing consciousness of the desirability of vital contacts between school and community.

In scrutinizing the following list of these innovations reported to *School Review*, it should be borne in mind that the list will not total the number of this nature just indicated, because some of the items of practice were reported in two or more schools. It is more important to remember that the list is not presented as comprehensive, since no list of innovations only would include *all* types of practice involving relations of school and community. More nearly typical practices in the full scope of such relations are touched upon in subsequent sections of the chapter.

Attention is directed not only to the particular items of practice but also to the designations of the four groups into which they have been divided for convenience in consideration, namely, (1) Interpreting the School to the Community, (2) Holding Parents' Meetings and Maintaining Parent-Teacher Organizations, (3) Utilizing Community Resources, and (4) Making the School Plant Available for Community Affairs. As admitted later, these divisions overlap each other, and it may be doubted whether a grouping could be achieved in which the divisions did not to some extent merge with each other.

1. Interpreting the School to the Community
    - Preparation of school news for the local press by classes in journalism
    - Responsibility for regular page in the local weekly
    - Responsibility for one complete issue of the local weekly
    - Regular "Parents' Page" in the school paper
    - Commemorative issue of school paper
    - Distribution of special periodicals (*School Chats* or *News Letter*) reporting school news and conditions
    - Publication of report of ten-year trends, showing needs
    - Publication of nontechnical report on school's development
    - "Vitalized" commencement exercises
    - Motion-picture films of school activities for parents' meetings
    - Operation by a school of its own radio station
    - Radio broadcasts of school activities
    - Radio broadcasts directly from the high school
    - Use of new types of reports on pupils to parents
2. Holding Parents' Meetings and Maintaining Parent-Teacher Organizations
    - Parents' night, with novel features
    - Parents' meetings motivated by a questionnaire previously distributed
    - Guidance meeting for parents of junior-high-school pupils to aid in decision on specialized senior high school of the system pupils will attend

  - "Open nights" emphasizing local history
  - Provision for pupil membership in parent-teacher association
  - Combination of pupil orientation with parent's meetings

3. Utilizing Community Resources
   - Part-time co-operative plan of vocational education
   - "Odd-jobs" organization to provide part-time employment for pupils
   - Printed list of community opportunities and services for pupils
   - Extensive use of excursions and field-study techniques
   - Operation of garden exchange for home gardeners through biology classes
   - Community health project (investigating extent of vaccination) in a junior high school
   - Preparation of lunches for malnourished pupils by a class in nutrition
   - Parental co-operation in an instructional project on Latin America in a junior high school
   - A junior-high-school project investigating and promoting improvement of garbage disposal
   - A seed show for motivating vocational agriculture
   - Replacement of Halloween rowdyism by harmless parties
   - Preparation for a centennial to a local celebrity
   - Pageant portraying events in state history
   - N.Y.A. project to provide school with decorative pictures
   - Follow-up studies of high-school graduates
   - Community participation in curriculum revision
4. Making the School Plant Available for Community Affairs
   - Construction of a unit combining housing for school music and small community building
   - Arrangements for low-cost, school-supervised evening dances

Comment on the grouping of items. Consideration here of school and community relations follows, in the main, the grouping under which the innovations in the foregoing list have been classified. Before turning to this consideration it is desirable to mention again the overlapping, or interdependence, of the items. Under the circumstances, the following statement made by William A. Smith in presenting a bibliography on "school and community" seems peculiarly appropriate, especially as the problems he names correspond in the main to the titles used for the above groupings:

> Three problems loom rather large in school-community relationships, namely, the interpretation of the school to the public, the co-operative enlistment of the public in the affairs of the school, and the extension of the school into the life of the community. Some are disposed to look upon these as separate and distinct problems. There is scant justification for this, since these three

problems are in the last analysis obviously merely different aspects of a common problem—the organic integration of the school and the community.[1]

Certain of the items in the list above are touched on again or described in the following treatment, although those treated elsewhere in this book—for instance, new types of reports to parents—are omitted from consideration.

INTERPRETATION

The purpose. Educational interpretation has as its purpose imparting to the public an understanding of the school and its needs. In the last analysis, support of public education in a democracy is dependent on favorable public opinion; therefore, if the schools are to be maintained, the public must be continuously informed concerning policies and programs, and if important changes are to be made, the public must be helped to an appreciation of the changes.

Moehlman has enlarged the concept of educational interpretation to "social interpretation," which may be thought of as a continuing program of adult education essential to effective operation of the democratic process. He contends that "social interpretation for the schools may be considered as those institutional activities which keep the institution aware of community opinion and needs and keep the people informed of the purpose, value, conditions, and needs of public education." [2]

The terms *educational interpretation* and *social interpretation* are displacing the expression *school publicity*, which is now assumed to be a less worthy concept, smacking sometimes even of propaganda and indirection.

The characteristics and concerns of interpretation. Grinnell has listed and discussed the characteristics essential to good interpretation. According to him, it should be continuous, honest, inclusive (rather than spotty and merely opportunistic), understandable, dignified but aggressive, and should reach everyone in the community and use every facility at hand.[3] It must be concerned with all important aspects of the school, such as curriculum and instruction, the extracurriculum, organization and administration, the teaching staff, buildings and equipment, and finance.

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[1] William A. Smith, "School and Community—A Bibliography," *California Journal of Secondary Education*, XIII (January, 1938), 34–37.

[2] Arthur B. Moehlman, *Social Interpretation*, p. 23. New York: D. Appleton-Century Company, 1938.

[3] J. Erle Grinnell, *Interpreting the Public Schools: A Manual of Principles and Practices of Public School Interpretation with Special Emphasis on Published Materials*, p. 26. New York: McGraw-Hill Book Company, Inc., 1937.

Policies and practices in many secondary schools. In connection with the National Survey of Secondary Education, Farley made an extended investigation of policies and practices in interpretation in 160 selected public secondary schools, of which 116 were senior and four-year high schools and 44 were junior high schools.[1] Inquiries into matters of policy disclosed considerable divergence. Asked to indicate the type of program, almost half (46 per cent) of the heads of the schools reported "permanent continuing" programs, a sixth (16 per cent) reported "campaign publicity" programs, and the remainder (almost a third) reported both types of program.[2] The emphasis appears to have been on continuous programs.

A second line of inquiry ascertained the "agency of publicity." Only a small proportion of the schools (15 per cent) carried on the program of publicity independent of the central administrative office of the system; for an even fourth the publicity was carried on by the central office; and for almost half the schools (46 per cent) the program was carried on both by each individual school and by the central office for all the schools in the system.[3]

The same investigation ascertained the means used to interpret the schools to (1) the pupils, (2) the faculty and other employees, and (3) the patrons and general public. The chief means used with pupils were the curriculum, extracurriculum, assembly exercises, home rooms, school clubs, school papers, school annual, and pupil handbooks.[4] The interpretation within the curriculum more often than otherwise pertains to the school in which the pupil is enrolled, although in about a fourth (26 per cent) and in almost a half (45 per cent) of the schools, respectively, the interpretation has to do with the city school system and with "education in general." [5]

The means of interpretation most often used with the faculty and other employees are faculty meetings, faculty bulletins, and the "house organ." [6] Those frequently reported as used with patrons and the general public are exhibits, local newspapers, commencement exercises, bulletins to the home, home and school visitation, the parent-teacher association, service to community organizations, school entertainments, annual school reports, and the radio.[1] Among avenues of interpretation sometimes, although less often, used are co-operation with local institutions or organizations, special occasions, and the use of the school building as a community center.[2] Among organizations used as avenues of interpretation are chambers of commerce, service clubs, women's clubs, churches, lodges and fraternal organizations, Y.M.C.A. and Y.W.C.A., and junior organizations like the Boy Scouts and Camp Fire Girls.

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[1] Belmont Farley, *Interpreting the Secondary School to the Public*, p. 55. United States Office of Education, Bulletin No. 17, 1932. Monograph No. 16.

[2] *Ibid.*, p. 56.

[3] *Ibid.*, p. 58.

[4] *Ibid.*, p. 63.

[5] *Ibid.*, p. 61.

[6] *Ibid.*, pp. 67–70.

The investigation of interpretation in the National Survey of Secondary Education made no inquiry into the frequency and nature of use of the reports on pupils to their parents—what are traditionally known as "report cards." One may judge from the discussion and illustrative types of report in the chapter on office practices (Chapter XV) that reports to parents can be one of the most informative means of interpretation to the community of school policy and practice.

The classification of means, or avenues, of interpretation followed in the report of the National Survey was under three headings: (1) pupils, (2) members of the faculty and other employees, and (3) patrons and the general public. This is intended to emphasize the fact that we must in the final analysis rely on *persons* for significant interpretation of the schools. These persons resort to use of media in their activities of interpretation. The classification also directs attention to two groups that are sometimes overlooked as agents of constructive publicity for the schools, namely, pupils and teachers.

A calendar of interpretation. The criteria of continuity and inclusiveness listed among the characteristics of interpretation quoted above as being urged by Grinnell would be more certainly met if a calendar of interpretation were worked out and followed. Calendars have been suggested by Fowlkes[3] and by the *Journal of the National Education Association*,[4] but they are intended for consideration by school systems rather than for individual secondary schools. The beginnings of a calendar of interpretation for an individual school might be worked out by comparing these suggested calendars with the calendar of events for the individual school. It would be unwise to plan such a calendar on any assumption that it is not subject to revision during the year and to change of emphasis from year to year, but the effort at systematizing the program of interpretation in this way should be a step toward effectiveness.

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[1] *Ibid.*, pp. 70–84.

[2] *Ibid.*, pp. 86–91.

[3] J. G. Fowlkes, "Planning the School Publicity Program for the Year," *The Nation's Schools*, VI (September, 1930), 84.

[4] "A Calendar of Interpretation," XIX (October, 1930), 208.

Publicity for athletics. No consideration of the program of interpretation for secondary schools would be complete if it did not at least touch on the imbalance represented in the large amount of publicity enjoyed by interscholastic athletics. The National Survey of Secondary Education found that only a fifth of the principals consulted considered that news reports of athletics reflect the educational values of sports themselves, and a fourth believed that this type of news receives too much space. The report of the Survey asks whether it is not a mistake to stress attention to sports activities, especially if to do so decreases the amount of consideration given by the public to other educational objectives.[1] The spontaneous interest in interscholastic athletics as now emphasized makes it particularly difficult to achieve anything like a balanced recognition in the press and in public attention for all aspects of secondary education, so that unusual efforts must be made to secure for nonathletic activities and needs the attention they merit. Without such efforts many persons in the community may come to believe that the overemphasis in the press corresponds with an overemphasis in the program of the school.

Advice concerning interpretation through the newspaper. Because the newspaper is admittedly one of the chief means of publicity for the school, it is desirable to give it some special emphasis in this brief consideration of educational interpretation at the secondary-school level. This emphasis may be provided by drawing on the observations and recommendations from the experiences of a high-school faculty member who was made part-time director of publicity by his principal. They are presented in two brief articles by Harvey B. Grocock of the high school in Bristol, Connecticut. It is Grocock's opinion that "the principal who wishes to obtain effective publicity for his school can solve the problem by appointing a member of the faculty as director of publicity, whose job it is to cover for the local paper all the events that would otherwise not be reported. Since most editors welcome cooperation of this sort, the problem of adequate publicity is at once solved, both quantitatively and qualitatively. The director of publicity will cover all events of real news value, and he will report the stories in the way in which the school wants and deserves to have them told." [2]

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[1] Belmont Farley, *Interpreting the Secondary School to the Public*, p. 92. United States Office of Education, Bulletin No. 17, 1932. Monograph No. 16.

[2] Harvey B. Grocock, "Effective Newspaper Publicity for the High School," *School Review*, XLVII (March, 1939), 205.

Following is the practical advice given by Grocock:

> The multiplicity of the work involves frequent and personal contact with the officials of the press, who under almost all circumstances will give their hearty co-operation. The publicity director must remember, however, that space is valuable and that time is important, and he must realize that the press is a business enterprise operated for the benefit of the city, not the school. He cannot demand a certain amount of space or a definite page location. If his story is cut, there is a good reason. If an article is held over for a day, he must be glad that it is finally printed. If his copy is late or is poorly written, the responsibility for what happens to it is his. The press is doing its part by giving the space that it can afford, and the director can reasonably ask no more.
>
> Another problem is planning when and how to write the stories. Since often, to be most effective, they must appear on a particular day, the director's schedule should give him a free period about the middle of the morning. At that time a capable stenographic pupil, assigned to him as his personal secretary, will take down the story as he dictates it and have it typewritten for him to proofread in time to beat the dead line. Incidentally, this method provides invaluable experience for a member of the office-practice class.
>
> For articles of an expository nature, such as an account of the methods of the school bank, which can be planned ahead of time because their value does not depend on appearance on a given date, more leisurely handling is preferable. In the preparation of some copy of this type, the director may even establish a sort of press bureau with a small staff of pupil assistants. Here is more valuable experience for qualified pupils, as well as an easing of the director's burden. It is axiomatic, however, that nothing should ever reach the press without having first passed the careful scrutiny of the director.[1]

Grocock's second article applies journalistic standards to the writing of school news. The following excerpts summarize the directions:

> *The lead of a story.* The first section of a news story is the lead—short, vivid paragraph (occasionally two) which tells *who? what? when? where? why?* and *how?* Since a poor lead inevitably spoils a story, the lead is the most important element in journalistic writing. The first four of the six interrogations indicated above are always answered in the lead; the last two may sometimes be omitted. . . .
>
> Such leads, technically known as "summary leads," tell the whole story in brief. Details are missing, of course, but the skeleton is there. On the peculiar merits of the material that he is handling, a writer must determine with which of the six items his story should begin. It may be said that *who* and *what* are most frequently used for the opening wedge, while *when* and *where* are employed least often. . . .

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[1] *Ibid.*, pp. 206–207.

> *The body of the story.* The lead is followed by the body of the story, which adds further information to amplify what has already been said in the opening paragraph. These additional facts are written in the order of their decreasing importance. . . .
>
> There are good reasons why such an arrangement should be followed consistently. The employee in charge of making up the pages at the newspaper plant may find that an article is too long to fit the amount of space available. To make a fit for a properly arranged story, he can throw away the slugs of type for the last paragraph or two and make the adjustment without serious damage to the story. If another order of writing had been used, obtaining the necessary condensation would require the rewriting of the entire account. Since time never permits such rewriting, the whole story may end in the wastebasket, to make room for something else which is of the right length. . . .
>
> *Other pointers.* The aim of all good newspapers is to present plain, unbiased facts. Because stories must at all times be impersonal, journalistic policy prohibits the use of *I* and *we* except on the editorial page or in direct quotation. A good reporter never lets himself and his opinions color his story. One way of avoiding the danger of editorializing (letting personal opinion enter the account) is to quote the authority for any statement against which such a charge could possibly be raised. . . . The reporter should also keep a close check on his adjectives, such as *inspiring* and *impressive*. The resultant coloring may spoil the effect. If a program is inspiring, that fact can be brought out by quoting someone's comments on it. The method is safer, and the effect more convincing. . . .
>
> In handling publicity for his school, the director should always remember that brevity, simplicity, and clarity are almost as important as accuracy. The newspaper cannot afford to print a long story on an event of minor news value. At the same time, the reading public demands news be reported briefly and vividly. If a story is not brief, simple, and clear, it is not read.[1]

The arrangement described by Grocock is only one of many used in the schools to supply educational news to the press. A plan not infrequently followed is for a well-organized journalism club in the school to assume the responsibility for reporting to the local papers, the club being sponsored by a teacher of English interested in journalism. Sometimes the class in journalism takes over the work, as is done in the Shortridge High School of Indianapolis.[2] At the time of report, three daily papers and nine community papers were receiving and publishing weekly news of activities of the school shared by pupils living in the advertising districts of the papers. The news was being written in a class in journalistic correspondence conducted by a teacher in the department of English. The members of this class were selected from a class in journalistic composition taught by the same teacher. The class included also the correspondents for the three daily newspapers, who were paid regular column-inch rates by the papers. The other correspondents received no other compensation than the training. Frequent notes and telephone calls have attested the wide influence of this network of school news.

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[1] Harvey B. Grocock, "Journalistic Standards for High-School Publicity," *School Review*, XLVII (June, 1939), 454–458.

[2] "One High School's Plan for Spreading Its News," *School Review*, XLVI (February, 1938), 85.

PARENT–TEACHER ASSOCIATIONS AND CO–ORDINATING COUNCILS

The objectives of high-school parent-teacher associations. The objectives of high-school parent-teacher associations have been listed in a publication of the Federal Office of Education.[1] As reported by the principals of a large number of high schools, junior and senior, these objectives are: (1) to create a program through which parents may get an understanding of the school's purposes and what the teachers are trying to do for the children; (2) to interpret the school to the public; (3) to develop between parents and the school an esprit de corps for solving their mutual problems with the boys and the girls; (4) to create a demand for and make possible the practices of newer and better educational procedures; (5) to furnish a medium for social contacts among parents, and between parents and teachers; (6) to study all phases of adolescent behavior; (7) to use every means of safeguarding the young so that good citizenship may result; and (8) to raise the standard of home living. The objective of serving only the material interests of the school seems to be less in evidence now than formerly. A comment justified by these objectives is that they have a great deal in common, even if they do not quite coincide, with the purposes of a program of educational or social interpretation.

The principal's part and the teacher's part in the association. The investigation reported by the Office of Education found, as was to be expected, wide extremes of practice in the part principals take in the affairs of parent-teacher associations, from a hands-off attitude to assumption of leadership. However, the consensus among principals is that they should take a part in mapping out the programs, make suggestions concerning policies of the associations, and co-operate in other ways. Whenever possible, parents should develop and conduct the programs and activities.[1] The need of active co-operation is urged by the service in educational interpretation that is renderable by these associations.

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[1] Ellen C. Lombard, *Significant Programs of High-School Parent-Teacher Associations.* Pamphlet No. 64, United States Office of Education, 1936.

Teachers, also, co-operate in various ways to make the work of these organizations effective. Half the principals represented in the Office of Education inquiry reported that teachers present different aspects of the school's work and interpret the school to parents by presenting the specific work, needs, and objectives of their respective departments. The same proportion of principals report that teachers work on committees or serve as officers of the organization, holding such offices as vice-president, auditor, secretary, treasurer, or member of the executive committee.[2]

Programs and projects of parent-teacher associations. The term *program*, according to the Office of Education study, has two meanings, namely, (1) the total plans, activities, and projects of an organization and (2) the details of a meeting or a series of meetings. The programs mentioned most frequently as contributing to the success of high-school parent-teacher associations are those which provide for addresses by selected speakers, demonstrations of school activities, and panel or round-table discussions. Among topics discussed at association meetings are the curriculum, pupils' problems, parents' problems, school finances, legislation, moving pictures, and home study.[3]

The service projects found to be undertaken by such associations concern plans of pupil aid (loan funds, free lunches, clothing, car fare, dental or medical aid, eyeglasses, textbooks, etc.), help in the solution of the schools' problems with pupils, development of programs of parent education, and support of schools (by encouragement of general support and specific help on items which local boards cannot or will not supply, such as orchestral instruments, uniforms for bands, motion-picture projectors and reels, and pictures for decoration).[4]

Suggestions of problems suitable for co-operative activity are available in the findings of an investigation by Shannon and others [5] of "Problems That Principals Would Like to Lay before Parents." Such problems were submitted by 143 principals of public and private schools. Problems set down by 10 or more principals are listed (in the order of declining frequency) in Table 106. Persons concerned with planning programs for parent-teacher associations should find in this list many problems of common concern to home and school. The consideration of these problems by such associations should contribute to educational interpretation.

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[1] *Ibid.*, pp. 12–13.

[2] *Ibid.*, p. 13.

[3] *Ibid.*, p. 18.

[4] *Ibid.*, pp. 25–27.

[5] John R. Shannon and Others, "Problems That Principals Would Like to Lay before Parents," *School Review*, XLV (May, 1937), 364–367.

TABLE 106

PROBLEMS MENTIONED 10 OR MORE TIMES BY PRINCIPALS AS THOSE THEY WOULD LIKE TO LAY BEFORE PARENTS[1]

PROBLEM	FREQUENCY OF MENTION
Homework (time and amount)	132
Entertainments (number of times, type, and participation)	98
Parent and teacher co-operation	90
Excused and unexcused absences	78
Extracurriculum work	64
Health (physical examination and other factors)	55
Reports of pupils' progress	53
Costumes and uniforms (outfits for physical education, graduation, and decent everyday dress)	50
Athletic contests	49
Promotion and retention	46
Parent-teacher association	46
Pupils' being out at night	44
Motion pictures (at school, in town, time and type)	44
Moral and sex instruction	42
Punishment and discipline	39
Reading of literature (amount and type)	36
"Dates" of pupils	33
Hot lunches (cafeteria)	33
Leaving grounds at noon	31
Smoking	27
Tardiness	25
Dances	24
Outside work	23
Fraternities and clubs	20
Co-operation with school nurse	19
Special time to make up lost work (an extra period at end of day)	19
Age of entrance	18
Student council	18
Curriculum construction	16
Radio	12
College education	12
Amount of work carried (selection)	11
Serving milk at school	10

Characteristics and activities of an effective parent-teacher association. From the investigation by the Office of Education certain conclusions were drawn, indicating the characteristics and activities of an effective association. According to these conclusions a "good high-school parent-teacher association" does the following:

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[1] *Ibid.*, p. 366.

1. Combines the services of principal, teachers, and parents in the planning and direction of its program.
2. Has definitely stated objectives.
3. Places the responsibility for leadership and for organizing and conducting the group upon parents.
4. Has the active co-operation of the principal and faculty in developing objectives, plans, and programs.
5. Recognizes in some way the contribution of the student body to which it is related.
6. Arranges programs of meetings to include a minimum of business transactions and entertainment and a maximum of educational features.
7. Differentiates its programs of service and meetings from those of the lower school, to meet the problems of the high-school pupil.
8. Avails itself of the help that can be obtained from materials issued by state and national organizations and by various institutions.
9. Informs itself of the condition of the school and of school finances, and stands ready to protect the school's interests.
10. Maintains student-aid projects suitable to the specific needs of the students.
11. Provides for continued service of seasoned, able workers in some capacity, although officers may change every two years.
12. Studies the needs of the community as well as of the home and the school, and selects projects to meet these needs.
13. Maintains at least one study or reading group.
14. Reviews and evaluates its accomplishments at the end of each year.
15. Sends its representative to district, state, and national meetings or conventions and, when possible, to regional conferences on high-school association problems.
16. Has practical bylaws in order that meetings may be conducted properly and that the purposes and policies of the organization may be fulfilled.
17. Furnishes its members with lists of books and bibliographies on the philosophy and practices of the high school and on the high-school parent-teacher associations.
18. Provides for member participation through open discussion, panel discussions, and round-table discussions.
19. Sets high standards and tries to attain them.[1]

Co-ordinating councils. Another type of organization having co-operative relationships with the school is what is typically designated as the Co-ordinating Council, although it sometimes bears other names, like Community Council, Council for Social Work, Youth Council, and Neighborhood Council. This organization is much less exclusively concerned with activities centering in the school than is the high-school parent-teacher association, and it is usually representative of wider interests in the community. The high-school parent-teacher association may well be one of the organizations represented in the Council. However, like the parent-teacher association, the co-ordinating council is chiefly concerned with the welfare of youth; in fact, it undertakes to co-ordinate all organizations and activities maintained on behalf of youth in a community.

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[1] *Op. cit.*, pp. 31–32.

The movement for co-ordinating councils is relatively young, but such organizations now number into the hundreds and they are to be found in the majority of the states. As Dickson, a party to the first of such councils, has stated, they have sprung up without a national promotional plan, stimulated by the problems of depression years, which brought to our attention more forcibly than before the necessity for co-operative action in the solution of critical social problems.[1]

The same writer asserts that out of the experience of the co-ordinating councils at work in different parts of the country, certain principles have emerged which seem to be fundamental to the effectiveness of a program of community co-ordination. These are as follows:

> 1. Any attempt at co-ordination should grow out of community recognition of the need for co-operative social planning.
> 2. Community co-ordination is a conference and counseling technique; the co-ordinating body does not directly engage in a program of action. . . .
> 3. The organization for community co-operation should include individuals and institutions which represent authority and influence. Unless those who occupy positions of leadership and control are willing to participate in group planning, there is little that can be done in the way of effective co-ordination.
> 4. Community co-ordination progresses slowly and becomes effective as increasingly difficult problems are successfully met. There is no type of organization or method that is applicable to all communities. The pattern of community organization develops from the individual needs of the community.
> 5. The most important considerations in the success of community co-ordination are the quality of local leadership and the extent of assistance which the sponsoring organization is able to provide. It is desirable that executive leadership and group sponsorship be located in an institution which is able to provide office and staff assistance.
> 6. The autonomy of member groups in the co-ordinating organization must always be respected. The council is entirely a counseling and a deliberative body. It has no executive or official authority; it does not vote on any questions of policy that relate to member agencies.

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[1] Virgil E. Dickson, "The Co-ordinating Council and the School," *California Journal of Secondary Education*, XIII (January, 1938), 22.

7. A co-ordinating council should welcome the presentation of a community problem by any individual or organization. The council is not only free to call upon community organizations for assistance, but opportunity for the presentation of community interests should be available at all times.[1]

Another writer, Kenneth S. Beam, has listed the activities that for the most part make up the programs of co-ordinating councils. They include (1) conducting sociological studies; (2) increasing recreation and group facilities, particularly in areas where the delinquency rate is high; (3) providing service for individual children, sometimes creating a new type of service that had hitherto not been available; (4) giving special attention to young people from 16 to 25 who are out of school and out of work; (5) removing or controlling destructive influences in the community; and (6) improving the home environment through extension of the parent-education program into districts not already reached.[2] It may be seen that the concerns of the co-ordinating councils overlap those of the parent-teacher association without displacing them. Both types of organization should be fostered by staffs in charge of secondary schools, at least in the larger communities.

UTILIZATION OF COMMUNITY RESOURCES

Purposes of utilizing community resources. In turning to the third phase of the relationship of secondary school and community—utilizing community resources—it is desirable to direct attention to the chief purposes of such utilization, even though they are rather obvious from the relationship.

One purpose is to afford opportunities for youth to observe and share in the life of the community. The conviction grows that education must be made realistic and that educational realism is scarcely possible without direct observation and participation.

One is helped to an appreciation of current trends toward affording youth the opportunities for observation and participation by recalling an aspect of the history of education in this country over the last century. A hundred years ago the typical period of schooling was short, extending through a few years for a few months each year. The time not in school, which made up most of the life of youth, was spent in directly observing and sharing in the life of the community. During the intervening decades and during the shift from an agricultural to an industrial economy, the age to which youth has been excluded from employment has been progressively advanced and the duration of school attendance correspondingly lengthened. The schooling available was of a type dominantly remote from the needs of life and living. This momentous alteration of the environment for youth took place without, until very recently, compensating effort to recontact school with life. The current effort at utilizing community resources may, therefore, in a sense, be properly regarded as re-establishment of opportunities for observation and participation.

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[1] *Ibid.*, pp. 22–23.

[2] Kenneth S. Beam, "Co-ordinating Councils," *Journal of Educational Sociology*, **II** (October, 1937), 68.

A second main purpose of efforts to utilize community resources is educational and social interpretation. The acceptability of this purpose is made more apparent than it is from mere assertion by the following exposition of types and examples; but it may be affirmed at this point that the type of education represented by carefully planned, direct observation of and participation in the life of the community commends itself to thoughtful persons as desirable both for youth and for the community at large.

Types of utilization. Scrutiny of a recent Yearbook of the National Council for the Social Studies [1] yields a number of types of use of community resources for instruction in the field represented. This Yearbook considers the whole problem of utilization from the standpoint of both theory and practice. Examples of practice reported include diverse uses of community resources by means of excursions, inquiries into local history, studies of leisure-time activities, preparation of maps and charts, co-operative community services, and community studies and surveys. While these practices were followed in the broad field of the social studies, most of them are no less suitable for other instructional areas, such as English, science, and the arts.

Instances of significant community projects. (1) *A pupil project investigating garbage disposal.*—An instance of utilization of community resources that provided authentic participation was a project investigating garbage disposal involving pupils in Grade VIII A in the Harbor High School, Ashtabula, Ohio.[2] Discussion of garbage disposal in a course in occupations and citizenship stimulated some member to suggest that the class start a survey of the ways in which the people of the city were disposing of the garbage. Members of the class prepared a questionnaire on the methods of disposal actually used by householders. Copies of the questionnaire were distributed by members of the class to all pupils in grades VII and VIII throughout the school system. Tabulation of the returns found large proportions (48.2 per cent) of the populace violating the city ordinances. It was concluded that the "people either do not know how they should dispose of their garbage or do not care about sanitary conditions in the city" and that "the policy of the city which makes each person responsible for his own garbage disposal is not sound." The report of the project was published in a local newspaper and was submitted to the city council and the city manager by a member of the council. Also, a high-school pupil presented the report to the Exchange Club of the city.

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[1] Ruth West (Editor), *Utilization of Community Resources in the Social Studies.* Ninth Yearbook of the National Council for the Social Studies. Cambridge, Massachusetts, 1938.

[2] This report is based on a description of the project published in the *School Review*, XLIV (April, 1936), 248–250.

(2) *"Open-school nights" emphasizing local history.*—The Theodore Roosevelt Junior High School of Williamsport, Pennsylvania, worked out programs for annual "open-school nights" in which local and frontier history was stressed. One of the special events of the first open night was "an appreciation lesson motivated through pupil research" which was presented by the Captain Sam Brady Historical Activities Club of the school. The lesson reviewed many details in the historical background of Williamsport and Pennsylvania. The program was so well received that the next year's open night was developed "in honor of the memory of the Reverend Joseph Priestley, clergyman, schoolteacher, and chemist . . ., born near Leeds, England, in 1733, buried in the cemetery at Northumberland near Williamsport . . ., discoverer of carbon monoxide, nitrous oxide (laughing gas), oxygen, and carbonated (soda) water." [1]

(3) *A class in nutrition that planned, prepared, and served lunches for malnourished pupils.*—For several years all pupils in the Northern High School of Detroit, Michigan, have been examined for symptoms of tuberculosis. The examinations have discovered a great many pupils who were decidedly underweight, and classes in nutrition have been organized by the department of home economics to try to remedy the condition. Each semester a group of pupils who are primarily interested in the practical side of food study meet daily for ninety minutes to plan, prepare, and serve a highly nutritious luncheon to selected malnourished pupils. Menus are planned in advance by the acting chairman, checked and accepted by the teacher, and filed in a book which is

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[1] This report is based on a brief item published in the *School Review*, XLV (April, 1937), 244–245.

available for reference to members of the class. The chairman assigns duties to other members of the class by posting a daily job sheet and rotating duties. The luncheon is served to the pupils at the actual cost of materials, and the class has been nearly self-supporting. Indigent pupils are provided for by interested groups in the school organization.

The weekly record of individual weights is posted on a chart kept in the classroom. The average gain per pupil per semester has always been satisfactory, ranging from 1.7 to 2.7 pounds. The individual gains are most promising, the largest single gain having been 10.5 pounds per semester.[1]

(4) *Extensive use of field-study technique.*—In connection with a course on economic and social problems in Grade XII of the Roxbury High School in Succasunna, New Jersey, much use has been made of observation through field trips. With the exception of the trip in connection with the study of marketing, no expedition extends beyond a radius of ten miles from the local community. All trips are taken during school hours, and the cost is carried by pupils, since no subsidy is as yet available from the school authorities. The length of time ranges from an hour to a full day, the longest expedition (to the early morning markets and security exchanges of New York City) leaving the school at five in the morning. The trips relating to economic problems have included observation in a commercial bank, clearinghouse, Federal Reserve Bank, tax collector's office, early morning market, security exchange, auction, retail store, pushcart market, telephone exchange, hosiery factory, newspaper plant, railroad switch tower, railroad terminal and roundhouse, telegraph office, and ocean liner. For information relating to social problems, trips have been made to an automobile factory, union headquarters, municipal police headquarters, state police headquarters, county jail, county criminal court, municipal hospital, county tuberculosis sanatorium, state hospital for mental diseases, homes ranging from a squatter's cabin on a dump to a millionaire's estate, county board of freeholders, township committee, and Navy and War Department arsenals. Itineraries and procedures in systematic observation have been carefully worked out.[2]

(5) *A junior-high-school community health project.*—A significant community health project was worked out by a class in the social studies in

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[1] This report is based on an item published in the *School Review*, XLV (June, 1937), 409–410.

[2] This report is based on an item published in the *School Review*, XLVI (June, 1938), 405–406.

Grade VII B of the Slauson Junior High School in Ann Arbor, Michigan, which had been discussing vaccines, preventive medicine, and the county health-unit plan. A member of the class had suggested that an authority discuss these problems in class, and the president of the class appointed a member to invite the school doctor to discuss community health, with special emphasis on the school's problem. In the meantime, it had been found that 7 of the 29 pupils in the class had not been vaccinated. A number of children wished to be vaccinated, and it was suggested that a form be sent to their parents on which permission could be given for the school doctor to do the vaccinating. Arrangements were then made for the doctor to include in his scheduled talk a demonstration of vaccination against smallpox. Four pupils were vaccinated at the class meeting.

The day following the vaccination, pupils inquired concerning the possibility of their making a survey to ascertain the number of children who had been vaccinated against smallpox. Pupil and teacher co-operation resulted in a satisfactory questionnaire form which was adopted by the class. The forms were distributed to the home rooms. Pupils explained the blanks and saw to it that they were correctly filled out, and they took great interest in tabulating results from the forms. Class discussion led to the decision to ascertain the number of pupils having vaccinations that would be considered effective by medical authorities, the number with vaccinations more than seven years old, and the number not vaccinated. The percentages of pupils in the three groups were found to be, respectively, 34, 22, and 44. Interpretation of the figures disclosed that 66 per cent of the children needed to be vaccinated. From previous discussion it had been learned that, if a community is to be immunized against smallpox, from 60 to 80 per cent of the population must be vaccinated.

The pupils saw the real problem. Because the school doctor could vaccinate for demonstration purposes only, it was necessary to conduct a clinic in some manner. Arrangement was made to have the city health officer do the vaccinating in the school's health clinic. The class realized the importance of securing permission of parents to vaccinate the children, and a form letter was prepared and distributed to parents through the home rooms. The pupils went through the experience of being troubled by negative responses from some of the parents, but they looked at the positive side and were pleased as the returned letters showed that the community had, in general, accepted the project.

During the clinic that followed, 141, or 26 per cent, of all pupils in the school were vaccinated. It was noted that 87 of these pupils had not been vaccinated before. Figures drawn to indicate the extent of immunization showed that 74 per cent of all children had been vaccinated against smallpox, an increase of 18 per cent; only 12 per cent had vaccinations considered by medical authorities as questionably effective; and only 26 per cent remained not vaccinated.[1] The educative values of such a project are readily apparent.

(6) *Extensive participation in community surveys.*—The Ninth Yearbook of the National Council for the Social Studies, to which reference has previously been made in this section, contains a paper by James A. Michener in exposition of a program of community surveys made by pupils in the Secondary School of Colorado State College of Education.[2] In addition to considering the problems involved in making such surveys and the values derived, the paper describes thirteen surveys which have been undertaken by pupils of the different grades of the school from Grade VII through Grade XII, dealing with the following problems: School Legislation, Traffic Survey, Beet-Sugar Industry, Housing Survey, Business Opportunities, Recreation for Youth, Bicycle Survey, Property Protection, Occupational Survey, Working Hours for College Girls, Buying Survey, Available Social Agencies, and Medical Care.[3]

Michener sets down four criteria for selecting problems for study in community surveys: (1) They must deal with a problem within the realm of pupil interest; (2) they should promise to be of service to the community when finished; (3) they should have a discoverable body of fact on which pupils will be able to formulate sound generalizations; and (4) the community should ask for them. The fourth criterion could not ordinarily be met until the community had had some satisfactory experience with school-conducted surveys. Michener reports that the Secondary School of the Colorado State College of Education has conducted so many successful surveys that activity of this kind can be confined to surveys for which the community itself has asked.[4] This situation is an admission of one of the greatest values of such surveys and is in line with implications of the second criterion; it is in striking contrast to the comment of citizens, when the first surveys were started, that they "didn't see what good a bunch of kids can do running around the streets."[1] Values to be expected for pupils are stated in terms of "outcomes" as follows: (1) better citizenship; (2) greater intelligence concerning the nature of community life; (3) ability to study other local problems for themselves, with justifiable conclusions; and (4) greater concern as adults about local government and social improvement.[2]

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[1] This report is based on an item published in the *School Review*, XLVII (March, 1939), 168–170.

[2] *Op. cit.*, pp. 144–163.

[3] *Ibid.*, pp. 148–153.

[4] *Ibid.*, pp. 147–148.

With one exception, that concerned with suitable nutrition for malnourished pupils (worked out in a department of home economics), the instances of utilizing community resources cited above were developed in connection with instruction in the broad field of the social studies. However, they had to do with many aspects of life and living, including health, safety, and recreation. Other instances might have been cited, touching on other aspects and worked out in connection with other fields of instruction. Also, in the whole array of examples of utilizing community resources there would need to be included the part-time co-operative arrangements for vocational training in trades and industry and their analogues in the home-project plan in agriculture and home economics. All told, opportunities for direct observation and participation are utilizable in all areas of life and in all fields of secondary-school instruction.

Utilization of community resources and freedom of teaching. An objection sometimes raised to projects involving studies of local conditions is that such a practice is hazardous to tenure of the teachers responsible for the work and of the administrators of schools employing these teachers. The argument urges that it is "safer" for teachers to avoid entirely the "controversial" issues inherent in such studies. The studies may run into "local politics" with which, the argument goes on, the schools should not undertake to deal because of the offense that may be taken by local personages or political parties.

An effective answer to the objection is provided in an article on "Realistic Teaching of Government and How to Get It" by Paul H. Hanus, professor emeritus of Harvard.[3] In Hanus's judgment, "local politics affords the very best area for realistic teaching of government, and state politics a close second."[4] He contends that teachers must be given the freedom to engage in realistic teaching. He urges that teachers' organizations throughout the country give all possible encouragement to teachers who are approximating the realistic teaching of government and that "steps be taken as soon as possible to promote the prevalence of realistic teaching of government . . . without subjecting competent teachers and school officers to impairment of reputation or to loss of their jobs." [1]

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[1] *Ibid.*, p. 162.

[2] *Ibid.*, p. 146.

[3] Paul H. Hanus, "Realistic Teaching of Government and How to Get It," *School Review*, XLVI (November, 1938), 657–666.

[4] *Ibid.*, p. 659.

What we face here is the old issue of the freedom of teaching. The battle for freedom is not yet completely won at any school level, but it is still being waged and gains are being made from time to time. Courage shown in handling the issue of freedom in utilizing community resources in teaching will help in attaining ultimate victory.

On this question of what is and what is not suitable to be done in school concerning local, state, and national political affairs, Michener, on whose paper concerning community surveys we have already drawn, has the following to say:

> Any intelligent educator knows what the school should *not* do in community participation. Schools should not sponsor one candidate over another in either a national or a local election. Public schools probably should not officially lobby for specific legislation. They should not attempt to stigmatize any segment of the population, and they have no right to anathematize individuals.
>
> Schools do, however, have a right to analyze all party platforms and the credentials of all candidates. Many educators would say such analysis is a major obligation of the curriculum. Schools certainly should dissect projected legislation, realizing that their technique and findings may influence the parents of their students. In local affairs, the school must recognize many social problems. Housing, health, working conditions, safety, vocational opportunities, recreational opportunities, local social services, law enforcement, bond issues, and projected amendments to state constitutions are all problems which the school can study.[2]

Utilizing the resources of the greater community. The emphasis in this section dealing with the utilization of community resources has been quite naturally on the local community, because schools have been prone to overlook the opportunities for educative experiences near at hand. The intent in the emphasis has not been to disparage the use of analogous resources in the larger community of the state, the region, or the nation as a whole. It is to be expected that schools will increasingly draw for realistic educative experiences on the larger community. This may be done in a variety of ways, such as through student excursions of various kinds and purposes, reports of youth and adults who have had special opportunity for observation or experience in the remoter areas, and special inquiries into practices or conditions in areas beyond the local community to throw light on analogous problems nearer home.

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[1] *Ibid.*, p. 662.

[2] *Op. cit.* pp. 144–145.

THE COMMUNITY SURVEY

Wider usefulness of the community survey. The community survey has been found to be an instrument of great usefulness in other community relationships of the school, as well as a valuable means of providing opportunities for direct observation of and participation in community life. It is being frequently used in at least two other connections in which the school figures prominently. One of these uses is to provide a basis on which to revise the curriculum to bring it more nearly in touch with life and living. The other is the even broader use in which all major community affairs and institutions are investigated, education and the schools being included as an important phase of the whole inquiry. Pupils and staffs of the schools may or may not be asked to take an active part in conducting surveys of these types, but they are almost always called upon at least to provide pertinent information.

Procedures and outlines for community surveys. Surveys of the community to afford a basis for improving the curriculum may relate either to some specific instructional area or to the curriculum as a whole. An instance of the former sort is McCalmont's study of the instructional background of pupils in general science.[1] In addition to securing information concerning the ability and achievement of pupils, he gathered and interpreted evidence on the pupils' environment, largely limited to a section of the city occupied by persons in lower socio-economic levels. His evidence yielded highly significant implications for the content and procedures of the science curriculum.

Among community-survey manuals available for use in attempts to improve the curriculum as a whole is a *Survey Work-Book for Community Analysis* prepared under the direction of the Division of Instruction of State Department of Education in Alabama.[2] The first chapter is introductory and has to do with such aspects as "Philosophy," "Purpose," "Organization," and "How to Discover Community Resources." The second chapter outlines the evidence to be assembled and interpreted. Under the general heading "General Community Data" appear the captions "Historical," "Physical Factors," "Population," "Industries and Business," "Transportation and Communication," "Local Government," "Social Welfare," "Housing," "Religion," "Health," "Recreation," "Library," and "Education." Under the heading "The Child's School and Home" are the captions "The School" and "The Home." A third chapter suggests "Uses of the Community in Classroom Work." The book also contains a bibliography.

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[1] John K. McCalmont, "The Instructional Background of General-Science Pupils in a City Community," *School Review*, XLIV (April, 1936), 291–297.

[2] *Survey Work-Book for Community Analysis* (Tentative). Curriculum Bulletin, No. 2, 1937. Montgomery, Alabama: Alabama Education Association.

Illustrative of manuals or outlines for the general community survey not pointed specifically at curriculum improvement is Colcord's *Your Community: Its Provision for Health, Education, Safety, and Welfare.*[1] Titles of chapters following the introductory one are "Community Setting, Founding, and Development," "Local Government," "Provision for Dealing with Crime," "Provision for Public Safety," "Workers, Wages, and Conditions of Employment," "Housing, Planning, and Zoning," "Provision for Health Care," "Distribution of Health Care," "Provision for the Handicapped," "Educational Resources," "Opportunities for Recreation," "Religious Agencies," "Public Assistance," "Special Provisions for Family Welfare," "Special Provisions for Child Care," "Foreign-Born and Racial Groups," "Clubs and Associations," and "Agencies for Community Planning and Co-ordination."

The community survey as educational and social interpretation. Reconsidering the functional relationships of the school with the community survey, one may repeat that they are of three main sorts. (1) Listed first was the relationship involved in the community survey as a means of utilizing community resources in the education of youth. In this type of use, the surveys undertaken are concerned with partial phases or single problems of community life rather than comprehensive of any large proportion of phases at any one time. Only through continuing the community-survey procedure over a long period of years could an extended program of surveys approach comprehensiveness. (2) The second relationship mentioned was that involved in the making of community surveys on behalf of improvement of the curriculum. These surveys would be more nearly comprehensive and would, of course, involve those phases of community life and institutions the study of which would be most likely to disclose significance for the curriculum. (3) The third relationship is that in which significance for education and the school is not the sole or dominant intent in making the survey; rather, the purpose is a better understanding of the problems of the entire community, with education and the school as only one of a number of concerns of the survey. In this third relationship the community survey may be regarded as social interpretation in its best and broadest sense.

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[1] Joanna C. Colcord, *Your Community: Its Provision for Health, Education, Safety, and Welfare.* New York: Russell Sage Foundation, 1939.

The potentialities of what may be termed the "homemade" community survey, or community "study," as he terms it, is suggested in a brief article by Howard Y. McClusky, in which he advocates a "community seminar for adult education." [1] Social interpretation is inherent in the fact that the plan proposed is for adult education in community matters. The author contends that the added costs of an adult-education program cannot be justified unless it is directed specifically toward the improvement and enrichment of the life of the common man. Acceptance of this point of view requires the inauguration of a program of adult education involving a twofold process of educating the community to an understanding of its problems and developing some community organization for the solution of these problems. The initial organization would, according to McClusky's recommendation, take the form of a commission of delegates representing every organization and agency in the community. The seminar would meet on call or at regular intervals, and all meetings would be open to the public.

The process, according to McClusky, would involve "about five interpenetrating phases." First would come discussion by members of the group with the objective of defining the problems confronting the community. Next would come investigation of community problems by members of the group. Next would come the sharing with members of the community who do not regularly attend seminar meetings the results of group discussions and investigations. The fourth phase would consist of delineation of projects designed to solve vital community problems; for example, a community chorus, band, or orchestra, a series of hobby clubs, a bureau of vocational guidance and placement, the improvement of library facilities, and so on. The fifth and final phase would be the establishment of a somewhat more permanent community organization to unify the solution of the tasks which the community has set for itself. This organization might take the form of the co-ordinating council previously described. (See pages 644–646.)

The possible connection of the school and the educational authorities with such a seminar is indicated in the following paragraph on the auspices under which the seminar might operate:

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[1] Howard Y. McClusky, "The Community Seminar for Adult Education," *University of Michigan School of Education Bulletin*, X (February, 1939), 68–71. The article is quoted almost in full in the *School Review*, XLVII (May, 1939), 331–334.

Leadership for the enterprise could be secured from neighboring institutions of higher education, research institutes and foundations, or from the permanent and nonpolitical staff of the state or Federal government, and could be ably assisted by members of the local school system and other outstanding lay leaders. The handling of data and preparation of materials for publication might be assigned to members of the community school, or to the public-high-school teaching staff and student body.[1]

THE SECONDARY SCHOOL AS COMMUNITY CENTER

An expanding concept. The idea of the school as a community center is an old one, reaching back to a period antedating the public high school. However, the coming of the high school, with its assembly hall or auditorium, gymnasium, library, shops, and other facilities not so often available in elementary schools, brought the idea into greater prominence, and extended utilization of the school plant by the community followed without delay the provision of the facilities. Development has reached such a stage that the concept of community use of high-school buildings is now a commonplace.

Although the practice may not yet be typical, it is far from unusual for the community use to be taken into account in planning new housing for secondary schools. Engelhardt has urged that city planners reanalyze the service which the schoolhouse may be expected to render the community and that the location of the plant and the facilities provided meet social, cultural, and recreational needs of adults as well as youth.[2]

The fourth group of innovations listed on page 634 refers to an interesting instance in point. The instance is reported as "A high-school structure combining music hall and a small community building." Information concerning it was supplied by the school authorities of Mason City, Iowa.[3] The structure is a one-story, ground-level, brick-and-stone-trim building on the high-school grounds, which are not far from the city's business district. It contains a variety of space provisions, chief of which is an auditorium and band room 50 feet square. At one end of this room are cement bleachers with rises of suitable height for accommodating a large band. On the opposite side of the room is a

[1] *Ibid.*, p. 70.

[2] N. L. Engelhardt, "School Buildings as Efficient Laboratories for Co-ordinating Community Activities," *Junior-Senior High School Clearing House* (now *Clearing House*), IX (January, 1935), 261–266.

[3] The brief description given here is based on a report in the *School Review*, XLV (June, 1937), 408.

speaker's platform, near which are four practice rooms, usable also as dressing rooms when events of a type requiring them are taking place. A public vestibule on the side nearest the business district leads into the largest room. For pupils there is another vestibule, to the music hall, on the side of the new building adjacent to the main high-school structure.

The concept of the secondary school as a community center has, however, extended far beyond the mere provision of space and facilities for the community at large. Instances might also be cited of special adaptations of complete new secondary-school structures with the intention of serving both school and community needs.

The concept of the secondary school as community center has gone even farther than the location of buildings and provision of special facilities for community use. It was a natural next step from the coming of the new facilities to advocacy of having the school assume leadership in developing some of or all the community activities that are housed in the secondary-school plant and in co-ordinating the educative and noncommercial recreational activities of the entire community. An educationist who, in writing on "The Co-ordinating Function of the Modern Secondary School," has expressed opinions largely in harmony with this expansion of the concept is Grizzell.[1] He says that "no other community agency is in as strategic a position as the school to evaluate, supervise, and co-ordinate the educational resources afforded by community agencies." He suggests the areas in which co-ordination is desirable and the agencies the service of whose activities would be enhanced by co-ordination, and he recommends the making of a detailed, continuous, and cumulative survey of the community (with emphasis on youth). To aid in the task of co-ordination, he suggests the formation of a "community council to serve as a general advisory group to the constituted educational authority," not unlike the co-ordinating councils considered earlier in this chapter (page 644).

The junior college and community-center activity. The rapid development of the junior college promises to accentuate the growth of community-center programs. This prophecy is supported by the emergence of outstanding programs in a number of strong local public junior colleges.[2] The accentuation of growth is to be expected from factors inherent in the junior-college situation as compared with the public-school system which does not extend beyond Grade XII. Among these factors are the greater maturity of the students and the typically greater scholarly competence of the faculty. The students are rapidly merging into adulthood, when they attain the characteristics and the interests of adults in the community. The greater scholarly competence requisite in instructors of students at the junior-college level fosters a prestige with the adult members of the community that, joined with the maturity of the students, encourages continuity of contacts of adults with the institution. This is not to say that strong community-center programs cannot be developed in high schools, but merely that the development is facilitated by the presence of instruction at the higher level.

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[1] E. D. Grizzell, "The Co-ordinating Function of the Modern Secondary School," *Bulletin of the Department of Secondary-School Principals*, XXII (January, 1938), 1–10.

[2] One such program has been described by J. B. Griffing in "The Junior College: A Community Center," *Journal of the National Education Association*, XXII (January, 1933), 5–6.

THE SMALLER SECONDARY SCHOOL AND THE COMMUNITY

The advantage of the smaller school in its community relations. Whether or not the smaller secondary schools capitalize it, they have an advantage over the larger school in matters of community relations. The advantage originates in the relative absence in the smaller community, with its simpler social organization and fewer institutions, of competing interests that often tend in the larger community to subordinate the secondary school in public attention. This prominence is symbolized by the school structure, which is usually the most imposing building in the community, and the smaller total population encourages its integration through common interests in the school.

Interpretation, organizations, utilization of community resources, and the school as community center. In considering the specific possibilities in community relationships of small secondary schools, it is advisable to adhere to the four-part grouping followed in the consideration of secondary schools in general, namely, (1) educational, or social, interpretation; (2) organizations; (3) utilization of community resources (including the community survey); and (4) the school as community center.

(1) A writer on the subject of the "publicity program" of rural high schools [1] recommends certain means as appropriate for such schools. He enumerates a "visitors' day," the local newspaper, a mimeographed school paper, the parent-teacher organization, and activities like high-school plays, athletics, assembly programs, and the commencement

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[1] Loren V. Karns, "Publicity Program in Rural High Schools," *High School Teacher*, VIII (February, March, April, 1932), 49–50, 67; 89–92; 135, 157.

events. The agents of publicity recommended are the principal, teachers, pupils, employing officers (the board), and the janitor.

(2) The advantage of the smaller secondary school mentioned above accrues in full as to its organization of parents and teachers. In most smaller communities elementary school and secondary school are housed in the same building, and loyalties are not divided as in larger communities with separate schools at the two levels. A single parent-teacher association suffices for the school system. If there is need for occasional separate recognition of elementary and secondary education in this organization, it is easily achieved by means of committees representing the two levels. In small communities, it might be desirable to have the parent-teacher association serve as co-ordinating council or to have a co-ordinating council displace the parent-teacher association.

(3) Several comments are prompted by consideration of the problem of utilizing community resources in the smaller community. Opportunities for observation as made in field-study techniques are obviously more restricted and the situation may require a greater proportion of excursions than for larger high schools to points outside the local community. The stricture does not apply so much to opportunities for sharing in the life and activities of the community. Community surveys by pupils should be found feasible in both large and small communities, although the task of making them should not ordinarily be so formidable in small as in large communities.

(4) The potentialities of the small secondary school as community center have been so often realized in practice that it would be largely gratuitous to discuss them here at length.

QUESTIONS, PROBLEMS, AND INVESTIGATIONS

1. Suggest procedures in evaluating practices or programs of educational interpretation.
2. Prepare a calendar of interpretation for some high school of your acquaintance.
3. How would practices in educational interpretation differ in separate secondary-school districts from those in secondary schools which are parts of a city school system?
4. Comment on the criticism sometimes made of parent-teacher associations that they are prone to "meddle in school affairs."
5. What are the similarities and differences in organization and function of parent-teacher associations and co-ordinating councils?
6. Suggest a set of regulations for the conduct and control of field trips.

7. Evaluate by the criteria suggested by Michener, as reported in this chapter, other community surveys made by pupils. You can find descriptions of them in educational literature.
8. List for some community of your acquaintance the organizations that should have representation in a co-ordinating council.
9. List the elements of a comprehensive program of community-center activity for a high school of your acquaintance.
10. Set down and comment on factors that might call for a more extensive community-center program in some high schools than in others.
11. Conduct an inquiry into all community relationships of a group of public secondary schools.

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